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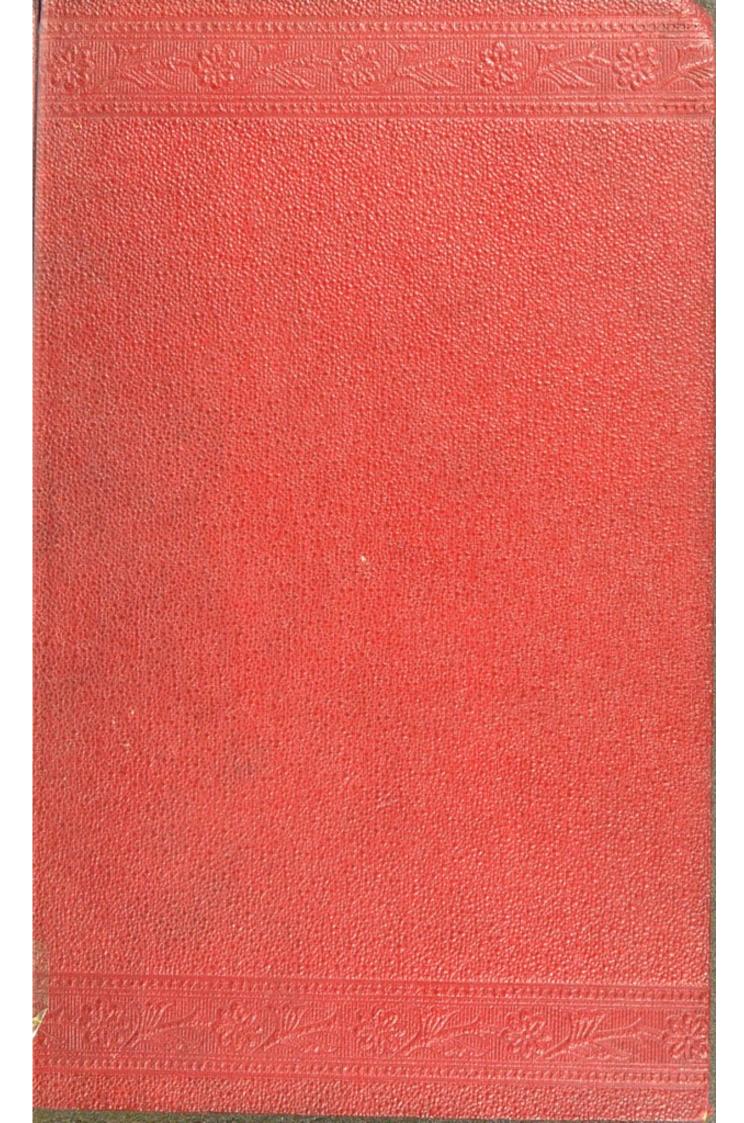
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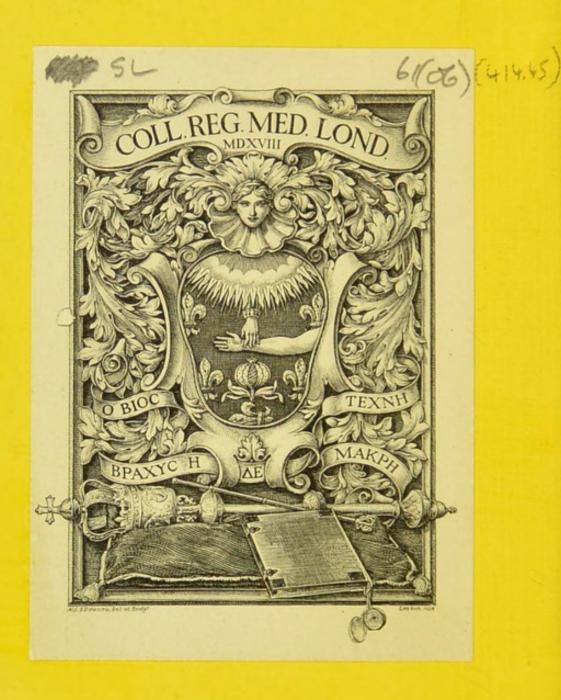
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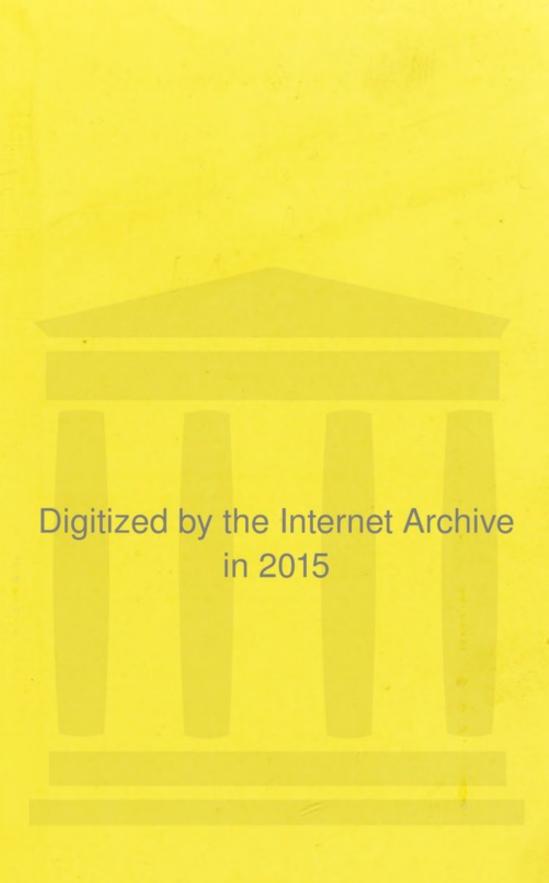
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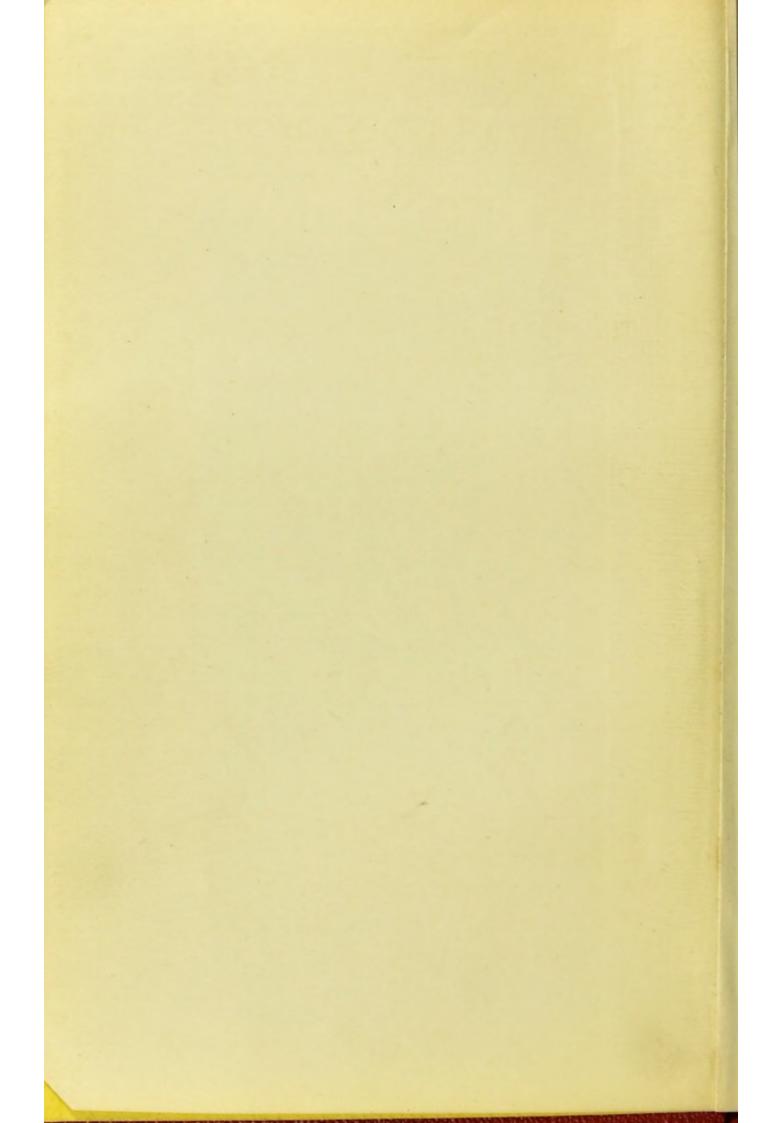








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# CALENDAR

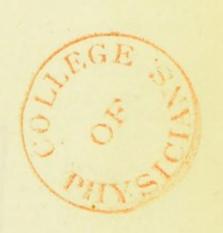
OF

# THE ROYAL COLLEGE OF SURGEONS OF EDINBURGH

AND

THE ROYAL COLLEGE OF PHYSICIANS
OF EDINBURGH.

YEAR 1896-97.



COMPILED BY

ANDREW M'DOUGALL,
OFFICE OF TRIPLE QUALIFICATION,
I GEORGE SQUARE, EDINBURGH.

PRINTED BY GEORGE ROBB AND CO., THISTLE STREET, EDINBURGH.

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# ALMANAC, YEAR 1896-97.

1896.	
October	<ol> <li>ThPractical Anatomy Rooms and Chemical Laboratories will be opened.</li> </ol>
	1. ThPreliminary Examination of Educational Institute of
"	Scotland begins.
	6. TuFirst Examination for D. P. H. of Triple Qualification
"	Board begins in Edinburgh,—Laboratory work at 10
	A.M.
	7. W Do. Written, 11-3; Oral, 4 P.M.
"	8. ThSecond Examination for D. P. H.—Report on Premises
"	visited, 10 A.M.; Examination at Fever Hospital,
	2-30 р.м.
	9. F Do. Written, 11-3.
**	10. Sa Do. Examination at Public Abbatoir, 10
"	A.M.; Oral, 2.30 P.M.
	12. M Fellowship and Licence Examinations of Royal College of
.,	Surgeons begin, Written, 11 A.M4 P.M.
14.0	13. Tu Do. Clinical Examination, 10 A.M.; Oral, 4
-77	P.M.
	13. TuMembership Examination of R. C. P. Edin. begins.
"	13. TuThe Classes in the School of Medicine commence for
.11	Winter Session.
	14. WFirst Professional Examination for Triple Qualification
"	begins in Edinburgh, 1 P.M.
"	15. Th., and following days, do. Oral.
22	19. M Second Professional Examination for Triple Qualification
"	begins in Edinburgh, 1 P.M.
"	20. Tu., and following days,Second Professional. Oral.
"	20. TuCompetition for Wood Bursary of R. C. P. Edin.
"	21. WStatutory Meeting of Royal College of Surgeons: Elec-
*	tion of Office-Bearers.
"	22. ThThird and Final Professional Examinations for Triple
4	Qualification begin in Edinburgh. Written, 10 A.M.
11	23. F Third Examination for do. Oral.
	93 F Final Examination do Clinical

1896.		
October	24.	SaThird Examination. Oral.
"		Sa Final Examination. Clinical.
"		M., and following days, Final Examination. Clinical and Oral.
"	31.	SaCompetition for Bathgate Memorial Prize of R. C. S.
		Edin.
November	3.	TuQuarterly Meeting of Royal College of Physicians, 4 P.M.
"	4.	WLicence Examination of R. C. P. Edin. begins.
December	2.	WLicence Examination of R. C. P. Edin. begins.
"	3.	Th Meeting of Royal College of Physicians: Election of
		Office-Bearers.
22	15.	TuMeeting of Royal College of Surgeons.
23	18.	FClasses close for Christmas vacation.
,,	25.	FChristmas Day.
,,	31.	ThThe Medical Register closes for publication.
1897.		
January	5.	TuThe Classes re-open.
"	6.	W Licence Examination of R. C. P. Edin. begins.
,,	11.	M Fellowship and Licence Examinations of R. C. S. Edin.
		begin.
17		TuMembership Examination of R. C. P. Edin. begins.
33	13.	. WFirst Examination for Triple Qualification begins in
		Edin, Written.
***		Th., and following days, do. Oral.
22		MSecond Examination for do. Written.
"		Tu., and following days, do. Oral.
27		ThThird and Final Examinations for do. Written.
11		. FThird Examination. Oral.
"		. F Final do. Clinical.
22		. SaThird do. Oral.
11		SaFinal do. Clinical.
***		. M., and following days, Final Examination. Clinical and Oral.
February		2. TuMeeting of Royal College of Physicians.
"		3. WMeeting of Royal College of Surgeons.
39		3. WLicence Examination of R. C. P. Edin. begins.
March		3. WLicence do. do.
"		. F Winter Session of Classes ends.
33 *	31	. WFirst Examination for Triple Qualification begins in
		Edin. Written.
April		. Th., and following days, do. do. Oral.
>>	1	. ThPreliminary Examination of Educational Institute of
	-	Scotland begins.
"		5. MSecond Examination for Triple Qualification begins in
		Edin. Written.
73		3. Tu., and following days, do. do. Oral.
11	8	3. ThThird and Final Examinations in Edin. begin. Written.

1897.							
- April	9. FThird Exami			Oral.			
11		lo.		Clinical.			
27	10. SaThird d	0.		Oral.			
"	10. SaFinal d	0.		Clinical.			
,,	12. M., and following d	lays Final Exa	mination. Clinic	cal and Oral.			
33	12. MMembership l	Examination of	R. C. P. Edin, be	egins.			
	12. MFirst Examin	nation for Trip	ole Qualification	begins in			
	Glasgow.			Written.			
,,	13. TuFirst	do.	do.	Oral.			
"	16. FSecond	do.	do.	Written.			
"	17. SaSecond	do.	do.	Oral.			
,,,	20. TuThird	do.	do.	Written.			
	21. WThird	do.	do.	Oral.			
"	22. ThFinal	do.	do.	Written			
"	23. F., and following d			al and Oral.			
,,	26. MFellowship at						
37	begin.						
	27. TuFirst Examin	ation for L. D.	S. of R. C. S. Ed	in begins.			
"	29. ThSecond	do.	do.				
May	4. TuFirst		H. begins in Ed	in (similar			
may	to Oct.).	do. D. 1.	ii. orgina in in	iii (aimiiai			
	4. TuMeeting of R	oval College of	Physicians				
33	4. TuSummer Sess						
22							
27	5. W Licence Exam						
27	6. ThSecond Exam	imation for D. I	. n. begins in Ec	un. (simuar			
	to Oct.).	aval Callaga of	Daniel and				
Turns	17. MMeeting of Ro						
June	2. WLicence Exan						
July	y 1. ThPreliminary Examination of Educational Institute of Scotland begins.						
				a a Bu			
"	5. MFellowship an	id Licence Exa	minations of K.	C. S. Edin.			
	begin.	·	T D D 11 1 1				
**	7. WLicence Exam						
"	7. WFirst Exami	nation for Tri	ple Qualification				
	Edin.			Written.			
"	8. ThFirst	do.		Oral.			
11	12. MFirst		egins in Glasgow				
99	12. MSecond		gins in Edin.	Written.			
"	12. MMembership I						
17	13. TuFirst Examin	nation for Tri	ple Qualification	in Glas-			
	gow.			Oral.			
,,	13. TuSecond	do.	in Edin.				
"	15. ThThird and Fir		n for Triple Qual	lification in			
	Edinburg	h.		Written.			
""	16. FSummer Sessi	ion of Classes en	ids.				

1897.						
July	16.	FThird	Examination	for Triple	Qualification	in Edin-
		bur	gh.		Oral.	
12	16.	FFinal	do.	in Edin.	Clinical.	
17	16.	F Second	do.	in Glasg	ow. Written	L
22	17.	Sa Second	do.	in Glasge	ow. Oral.	
"	17.	Sa Final	do.	in Edin.	Clinical.	
,,	19.	M., and fo	llowing days	s,Final E	xamination	in Edin-
- 1988//			gh.			and Oral.
"	20.	TuThird	do.	in Glasg	ow. Written	l.
. ,,	21.	W Third	do.	in Glasge	ow. Oral.	
"	23.	FFinal	do.	in Glasg	ow. Written	l.
11	24.	Sa., and fol	lowing days,	Final Exa	mination in	Glasgow.
Clinical and Oral.						
11	26.	MFirst B	examination for	or L. D. S. of	R. C. S. Edin	n. begins.
,,	29. ThSecond do. do.					
"	30. F Competition for Dr Thomas Hill Pattison's Bursary of					
			CP. Edin.			
August						
"			e Examination			

# HISTORICAL SKETCH of ROYAL COL-LEGES and SCHOOL of MEDICINE.

THE first Charter of the Royal College of Surgeons of Edinburgh is dated 1st July 1505, and is termed a "Seill of Cause by the Towne Counsell of Edinburgh," and this Charter to the "Surregeanis and Barbouris," constituting them a Civic Incorporation of Edinburgh, was confirmed on 13th October 1506 by Charter of Confirmation by King James IV.

From its terms it would appear that the "Surregeanis and Barbouris" had, previous to that date, some recognised status. In that document the interests of science, religion, and astrology are strangely blended, and the part relating to the study and teaching of Anatomy and Surgery is as follows:—

"Thatt quhair we beleve itt is weill knawin till all your wisdomes quhow thatt we uphald ane altar situat within your college kirk of Sanct Geill in the honour of God and Sanct Mongow our patrone and hes na importance to uphald the samyn but oure sober oulklie penny and upsettis quhilk ar small in effect till sustene and uphald oure said altar in all necessar thingis convenient thairto. And because we ar and ever was of gude mynde till do this gude toune all the steid plesour and service that we can or may baith in walking and wairding, stenting and bering, of all uther portabill chairges within this burgh at all tymes as uther nichtbouris and craftis dois within the samyn, We desyre at your Lordshipis and wisdomes till geve and grant to ws and oure successouris thir reulis statutis and privilegis vnder writtin,"-" Item thatt na maner of persoun occupie nor use any poyntis of oure saidis craftis of Surregerie or barbour craft within this burgh bott gif he be first frieman and burges of the samyn, and that he be worthy and expert in all the poyntis belangand the saidis craftis diligentlie and avysitlie examinit and admittit be the maisteris of the said craft for the honorabill seruyng of oure Soverane Lord, his liegis and nychtbouris of this burgh; And als That everie man that is to be maid frieman and maister amangis ws be examit and previt in thir poyntis following, THATT 18 TO SAY, That we knaw anatomea, nature, and complexioun, of every member In manis bodie. And in lykewayes he knaw all the vaynis of the samyn, thatt he may mak flewbothomea in dew tyme. And als thatt he knaw in quhilk member the signe hes domination for the tyme, for every man aucht to knaw the nature and substance of every thing thatt he wirkis or ellis he is negligent. And that we may have anis in the yeir ane condampnit man efter he be deid to mak anatomea of quhairthrow we may haif experience, Ilk ane to instruit uthers. And we sall do suffrage for the soule. And that na barbour-maister nor servand within this burgh hautt use nor exerce the craft of Surregerie without he be expert and knaw perfytelie the thingis abone written."

The preliminary instruction then considered necessary for entering on study for the Medical profession was as follows:—

"Item. That na maisteris of the said craft sall tak ane prenteis or feit man in tyme cuming to use the surregeane craft without he can baith wryte and reid. And the said maister of ony of the saidis craftis that takis anie prenteis sall pay at his entres to the reparation of the said altar tuenty schillingis."

This Charter expressly granted the College the right to teach, and the College Diploma was a professional qualification long before the University degree of M.D. was instituted. During the first century and a half of the existence of the Corporation of Surgeons there were no important changes in their corporate rights. They were the sole teachers, and almost the sole practitioners in the City of Edinburgh, of what was then known as the healing art. The College Records do not give the dates of entry of the first sixteen members recorded, but they were all on the roll in 1581—the date of the earliest Minute. These Records contain a collected list of members or freemen of the Corporation dating back to August 1581, when Gilbert Prymross, Chief Surgeon to King James VI., was deacon. The deacons (corresponding to the modern president or chairman) were frequently chosen to represent the Town-Council in the Scottish Parliament.

The Royal College of Physicians was established in 1681 by Charter of Incorporation obtained from Charles II., through the exertions of Sir Robert Sibbald, an eminent physician and naturalist. The Charter, inter alia, provided that those who intended to practise the profession should be examined as to their capacity for doing so; it prevented anyone from practising medicine within the jurisdiction of the College who had not obtained its licence or diploma, and it also prevented the magistrates from allowing any one to open

an apothecary's shop until he had, by an examination, satisfied the President and censors of the College that he had a competent knowledge of drugs. Their first hall was situated in Fountain Close, High Street, the College having purchased in 1704 the house and grounds of Sir James Mackenzie, and in 1722 a new hall was erected in the garden. The buildings became dilapidated, and in 1760 the College was accommodated in the Royal Infirmary. They afterwards acquired a site in George Street, and on 27th November 1775 the foundation stone of a new hall was laid. This hall, though beautiful in external appearance, was not very convenient, and in 1843 the hall was sold to the Commercial Bank of Scotland. On 8th August 1844 the foundation stone of their present hall in Queen Street was laid, and extensive alterations have been made on it from time to time, until it now comprises a handsome and suitable building, with a Library capable of holding about 25,000 volumes.

Till an Act was passed in 1695 the powers of the Corporation of Surgeons were bounded by the city walls, but by that Act they were constituted Chirurgeons and Chirurgeon-Apothecaries of Edinburgh, and were empowered to examine all who practised Anatomy, Surgery, and Pharmacy within the three Lothians, and the counties of Peebles, Selkirk, Roxburgh, Berwick, and Fife. This was by far the most important of the earlier documents connected with this College, and was an important step, indicating the desire which then existed for having educated and qualified Surgeons in the rural districts. There can be no doubt that it contributed largely to the establishment of the Medical School of Edinburgh. From the Minutes of the Royal College of Surgeons it is learned that for nearly two centuries before this date dissections were from time to time conducted for the instruction of the pupils of the College, but owing to the very disturbed state of the country at that time the progress in Anatomy or Medical Science must have been seriously hindered. In fact it was not till 1697 that the old Surgeons' Hall was rebuilt (where the City Fever Hospital now is).

and a Theatre was completed within the Hall in December of that year for the purpose of more efficient Anatomical Study. In that year Alexander Monteath, a member of the College, and the leading surgeon of his day, who had taught Anatomy since 1694 in rooms supplied by the Town-Council, took on lease a chemical laboratory, consisting of three rooms in the west wing and ground floor of the Hall of the College for the purpose of teaching Chemistry. In 1705 Robert Elliot, also a member of the College, was constituted Professor of Anatomy and Curator of the Surgeons' Museum, and was in the same year also appointed first Professor of Anatomy in the University of Edinburgh (the oldest Chair in the University). Another member, Adam Drummond, was conjoined with Elliot in July 1708 in the Professorship, and in 1716 John M'Gill, then Deacon of the Surgeons, was chosen joint Professor of Anatomy with M'Gill, in room of Elliot. deceased, but Drummond and M'Gill resigned in favour of Dr Alexander Munro, who was elected Professor of the College in 1720. The celebrated Munro was the first of the three successive Professors of Anatomy who bore his name. When he opened his class in the theatre in Surgeons' Hall he had 57 students, and it steadily increased to 147. Munro was appointed by the Town-Council permanent Professor in the Medical Faculty of the University on 14th March 1722, and from that date the Medical School of the University may fairly claim a real existence. He continued to teach (like his predecessors in that Chair) in the Surgeons' Theatre, till 1725, when his teaching was transferred to the Medical Faculty of the University.

Botany, the earliest of the other branches of medical in-

struction, was taught as far back as 1676.

In 1720, at the Surgeons' Theatre, Theory of Physic was taught by Dr Andrew Sinclair or St Clair, Practice of Physic by Drs John Rutherford and John Innes, and Chemistry by Dr Andrew Plummer, all Fellows of the College of Physicians. On 9th February 1726 these gentlemen were constituted Professors of Medicine of the University; Midwifery was

added on the same day under the professorship of Mr Joseph Gibson, a member of the College of Surgeons, and the Medical School was then transferred from the College Hall to the University, and the College of Surgeons encouraged it by sending its Students there.

On 6th August 1729 the Royal Infirmary was opened in a humble way in a small house near the old University, and on 25th August 1736 the Infirmary was incorporated by Royal Charter. It was then proposed to erect a building to accommodate 1700 patients per annum, and the foundation-stone was laid on 1st August 1738. In this movement the two Colleges took a very active part, and in addition to subscribing to the fund for the erection of the building, bound themselves to undertake the medical and surgical charge of the Infirmary gratuitously. Without this large hospital the School of Medicine could never have existed as a practical school. The Students of Medicine, upon paying a small gratuity, were permitted to attend the hospital. Dr Rutherford commenced delivering clinical lectures on Medicine in the winter session of 1746-47, and was immediately attended by a large number of Students.

By Royal Charter or Letters Patent, dated 14th March 1778, the Incorporation of Surgeons was constituted a Royal College of Surgeons, and the Charter gave them a national position, although their connection with the Town-Council was not severed until they obtained an Act of Parliament in 1850, and a new Charter in 1851. By this Act of 1850 the lingering connection which had existed between the Royal College of Surgeons (as the representatives of the Chirurgians and Barbours) and the Incorporated Trades of the city was dissolved.

Mr James Rae, a member of the Incorporation of Surgeons, having given a course of general lectures on Surgery for some time, was, in 1769, requested by the students to deliver practical lectures on the surgical cases in the Royal Infirmary. He agreed, and conducted two separate courses of lectures for a number of years. Rae was thus the founder of clinical lectures on Surgery in Edinburgh. Mr James Russell, surgeon,

who began in 1786 to give clinical lectures in Practical Surgery, was appointed first Professor of Clinical Surgery in the University in 1802.

In 1804 Mr John Thomson, Fellow of the Royal College of Surgeons of Edinburgh (afterwards Professor of Pathology in the University of Edinburgh), was elected Professor of Surgery to the College, and was directed to deliver annually during the Winter Session a course of Lectures on the Principles and Practice of Surgery. He was succeeded in 1821 by Mr John William Turner.

In 1832 the present hall of the Royal College of Surgeons in Nicolson Street was erected on the site of the Royal Riding School, and is a remarkably beautiful building in the Grecian style, with six ornamented Ionic columns in front, supporting a portico, and the College removed to it from their old Hall in Surgeon Square. Commodious lecture-rooms, dissecting-rooms, and laboratories were erected by the College adjoining their Hall, and teaching has been carried on in these ever since. The School is thoroughly equipped in every respect.

The Royal College of Surgeons have a published list of Licentiates dating from 1815, but the Licence had been granted for many years prior to that date, and although the names of these Licentiates have not been recorded in collected form, their names and dates of admission are recorded in the Minutes of the College. The Licentiates were required to go through a curriculum of professional study, and were examined in Anatomy, Physiology, Chemistry, Medicine (including Materia Medica and Therapeutics), Surgery, and Surgical Anatomy, Midwifery, and Medical Jurisprudence.

The University of Edinburgh did not grant a Surgical degree until 1860, and previous to that time about two-thirds of those who held the degree of M.D. of the University of Edinburgh were also Licentiates of the Royal College of Surgeons. Between 1815 and 1859 the College sent out, on an average, 140 Licentiates yearly.

The Royal College of Physicians had issued a Licence to

practise up to 1829, but this was granted to University graduates only, and without examination. Their Licence had been from 1st November 1763 a necessary stepping-stone to the Fellowship, but when this requirement was abolished in 1829 the old Licence ceased to exist. Owing to changes which had taken place in the School of Medicine, and to the passing of the Medical Act of 1858, the College in 1859 renewed the Licence, and since the end of that year no one has received the Licence without examination.

Extra-mural Lecturers have been recognised by the University of Edinburgh since 1855. Strangely enough, the proposal came from within the Medical Faculty of the University, urged by the late Professor James Syme, fifteen years previously. Students may now attend one-half of the classes required by the University for its degrees in the School of Medicine.

During the present century rapid advances have been made in medical and surgical education in the school. During the past thirty years over twenty teachers of the school have been appointed Professors in Scottish Universities and in other Universities.

The present number of Lecturers is sixty-five, of whom fifty-four deliver qualifying courses of instruction of the same duration and scope as those delivered in the Universities, while a large number of Lecturers conduct courses on special subjects, applicable to Medicine and Surgery, but which are not included in the curriculum of the Colleges.

The profession and the general public have a complete security and satisfaction in knowing that no teacher of any qualifying branch of medical education is received into this School of Medicine who has not passed a very searching and special examination before one or both of the Royal Colleges of Surgeons or Physicians of Edinburgh, and thus given evidence of the possession of a competent knowledge of the subject which he desires to teach, as also of having the amplest means of illustrating his lectures. Upon satisfying one or both of the Royal Colleges upon these important

points, so necessary for advancing the well-earned renown of Edinburgh as a Medical School, he obtains a special College authority and recognition to teach the subject that he professes. As a result of this imperative ordeal, which every qualifying teacher in this School of Medicine must pass through, he thus stands on a very different platform from one holding a mere patronage presentation.

# Museum of the Royal College of Surgeons.

The Members of the Incorporation of Surgeons began at a very early stage of their incorporation to collect specimens of anatomy and of natural history to form a Museum. In 1702 Dr Pitcairn, the eminent physician of his day, presented a skeleton, the oldest specimen in the Museum. Dr Munro presented another skeleton on 13th September 1718.

The first great acquisition was in 1826, when the museum of the late Dr John Barclay was bequeathed to the College, and the College purchased the museum of the late Sir Charles Bell, London, the two constituting, together with the accumulation by the College, an anatomical and pathological collection not inferior to any other in the kingdom. It is maintained at considerable expense, and it is open free to all registered medical students, and demonstrations are given by the Conservator, Mr C. W. Cathcart, F.R.C.S.E., on such days and at such hours as may from time to time be announced at the Royal Infirmary gate. No charge is made for these demonstrations.

Lecturers also take their students through the Museum and demonstrate on the specimens.

# ROYAL COLLEGE OF SURGEONS.

# Office-Bearers.

PRESIDENT-John Struthers, M.D., LL.D., F.R.C.S.E., M.R.C.P.E.

VICE-PRESIDENT-Peter Hume Maclaren, M.D., F.R.C.S.E.

PRESIDENT'S COUNCIL.

Sir Henry Duncan Littlejohn, M.D., LL.D., F.R.C.S.E.
John Smith, M.D., LL.D., F.R.C.S.E.
Douglas Argyll Robertson, M.D., LL.D., F.R.C.S.E.
Joseph Bell, F.R.C.S.E.
John Duncan, LL.D., F.R.C.S.E.
R. J. Blair Cunynghame, M.D., F.R.C.S.E.

Ex. off. Peter Hume Maclaren, M.D., F.R.C.S.E.

" Patrick Heron Watson, M.D., LL.D., F.R.C.S.E., F.R.C.S. Irel. (Hon. causa).

" " Francis Cadell, M.B., F.R.C.S.E.

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THE ROYAL COLLEGE OF PHYSICIANS OF EDINBURGH, THE ROYAL COLLEGE OF SURGEONS OF EDINBURGH, and THE FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW, have made arrangements by which, after one series of examinations, held in Edinburgh or in Glasgow, or in Edinburgh and Glasgow, the Student may obtain the Diplomas of the Three Co-operating Bodies.

The object of the Joint Examination is to give to Students facilities for obtaining, after one series of examinations, the Qualifications in Medicine and Surgery of the three Scottish Corporations. Students passing the Final Examination, which is a qualifying Examination under the Medical Act, 1886, will be entitled to register three Diplomas under the Medical Acts, viz.—Licentiate of the Royal College of Physicians of Edinburgh, Licentiate of the Royal College of Surgeons of Edinburgh, and Licentiate of the Faculty of Physicians and Surgeons of Glasgow.

The arrangement for thus conferring a Joint Qualification by the co-operation of the three Corporations is in conformity with Section XIX. of the Medical Act, 1858, received the special sanction of the General Council of Medical Education and Registration at a Meeting held on the 31st March 1884, and came into operation on 1st October 1884.

The Regulations herein set forth apply only to Candidates commencing Medical Study after 1st January 1892. The Regulations applicable to Candidates who began Medical Study before that date are published separately.

Female Candidates are admitted to the Examinations for this Qualification equally with male candidates; and throughout these Regulations the masculine pronoun is to be read as standing for Candidates irrespective of sex.

The three Co-operating Bodies grant their Single Diplomas only to Candidates who already possess another and opposite

Diploma in Medicine or Surgery, as the case may be.—Thus the Royal College of Physicians of Edinburgh may grant its Licence on Examination to Candidates already possessed of a recognised British, Irish, Indian, or Colonial Qualification in Surgery; and the Royal College of Surgeons of Edinburgh, and the Faculty of Physicians and Surgeons of Glasgow may each grant its Licence on Examination to Candidates already possessed of a recognised British, Irish, Indian, or Colonial Qualification in Medicine. Copies of the regulations for the Single Diploma of any of the Bodies may be had on application to the respective Secretaries.

N.B.—Under the provisions of the Medical Act of 1886, these Single Diplomas do not confer the right to registration, except as additional Qualifications to those already on the Register.

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# NEW REGULATIONS.

# Five Years' Course.

#### CHAPTER I.

PRELIMINARY EXAMINATION AND REGISTRATION.

1. The Preliminary Examination in General Education must be passed before the commencement of Professional Study. This Examination may be passed before any of the Boards recognised by the General Medical Council, a list of which will be found in Appendix III.\*

The Examination must embrace the following subjects:-

- "(a) English Language, including Grammar and Composition.
- "(b) LATIN, including Grammar, Translation from specified authors, and Translation of easy passages not taken from such authors.
- "(c) Mathematics, comprising (a) Arithmetic; (b) Algebra, as far as Simple Equations, inclusive; (c) Geometry, the subject matter of Euclid, Books I., II., and III., with easy deductions.
- " (d) One of the following optional subjects:-
- " (α) Greek, (β) French, (γ) German, (δ) Italian, (ε) any other Modern Language, (ε) Logic."

The entire Examination must be passed at one period, unless the Student has passed a part of a recognised Preliminary Examina-

<sup>\*</sup> The Educational Institute of Scotland conducts a Qualifying Preliminary Examination for Medical Students in Edinburgh and Glasgow on behalf of the Royal Colleges of Physicians and Surgeons of Edinburgh, and the Faculty of Physicians and Surgeons of Glasgow. Copies of the Regulations may be had on application to Thomas Morrison, LL.D., Free Church Training College, Glasgow, the Secretary of the Examination Board of the Institute, or to Alexander Mackay, LL.D., 40 Princes Street, Edinburgh, the Treasurer of the Institute, to whom all inquiries regarding this Examination must be addressed.

tion before 1st January 1892. Certificates of having passed a University Examination required for graduation in Arts, or a Senior or Higher Local University Examination, or a Senior Grade Examination of the Intermediate Education Board of Ireland, or the Leaving Certificate Examination (Honours and Higher Grade) of the Scottish Education Department wherein the specified subjects of General Education are included, may be recognised for the purpose of Registration. All applications for special recognition of any Preliminary Examinations not at present recognised by the General Medical Council must be addressed to the Registrar of the General Council—Mr W. J. C. Miller, B.A., 299 Oxford Street, London, W.—that they may be submitted for decision to the Students' Registration Committee of the General Council. All Preliminary Examinations so recognised shall be also accepted by this Board.

- 2. The Student must, within fifteen days of the commencement of study, obtain registration, and when once effected it does not require to be repeated in any succeeding year. For this purpose the Student must send to the Registrar of the division of the Kingdom in which he is studying a schedule \* properly filled up, attested by one of the Teachers or Officials of the School or Institution in which he is studying, and signed by himself; and along with this schedule he must send the certificate of his having passed the Preliminary Examination in General Education.
- 3. A Student who has previous to Registration attended a course or courses of study in one or all the subjects, Physics, Chemistry, or Biology, in any University, School of Medicine, or recognised Teaching Institution may without further attendance be admitted to Examination in these subjects; provided always that such course or courses shall not be held to constitute any part of the five years' course of professional study.

<sup>\*</sup> A copy of the Schedule may be obtained from the Authorities of the Medical School or Teaching Institution, or from the Registrar of the Scottish Branch Council—Mr James Robertson, Solicitor, 1 George Square, Edinburgh.

#### CHAPTER II.

## PROFESSIONAL EDUCATION.

- 1. The course of professional study after registration must occupy not less than five years, and except in the case mentioned in Sec. 4 (p. 29) comprise five winter and five summer sessions; but Graduates in Arts or Science of any recognised University, who shall have spent a year in the study of Physics, Chemistry, and Biology, and have passed an Examination in these subjects for the degrees in question, shall be held to have completed the first of the five years of medical study.
- 2. The following is a Statement of the entire Course of Study required:—

Physics,*	3 months.
ELEMENTARY BIOLOGY,*	3 months-
CHEMISTRY,*	6 months.
PRACTICAL CHEMISTRY,	3 months.

\*.\* The Certificates in those subjects should shew in what form the instruction has been given, whether by Lectures, Demonstrations, Practical Work, &c.

ANATOMY, .							1 Course 6 months.
PRACTICAL ANAT	OMY (I	ISSECT	rions, w	hich s	hould c	ompr	ise the whole
human body)	, .						12 months.
MATERIA MEDICA	, INCL	DING	THERA	PEUTIC	8, .		1 Course 3 months.
Physiology,							1 Do 6 months.
PATHOLOGY,						-	1 Do 3 months.
PRINCIPLES AND	PRACTI	CE OF	MEDICI	NE,			1 Do 6 months.
PRINCIPLES AND	PRACTI	CE OF	SURGE	RY,			1 Do 6 months.
MIDWIFERY AND BORN CHILDI	DISEA	SES O	F Wom	EN ANI	of Ni	-W-}	1 Do 3 months.
MEDICAL JURISPI	RUDENO	E AND	HYGIE	NE,"			1 Do 3 months.
** The above Courses must be attended at a recognised Medical School. In the							
Systematic Courses Lectures need not be delivered oftener than thrice weekly,							
but the certified attendance must be on not less than three-fourths of the							

total number of Lectures delivered in a Course.

† These Courses may be wholly or partly Clinical.

<sup>\*</sup> Synopses indicating the range of these subjects as regards examinations are given in Appendix I.

HOSPITAL PRACTICE, . Not less than 24 months before the final year of study. DISPENSARY PRACTICE, . . . . Not less than 6 months.

\*.\* The above Course of Hospital Practice, and the above Courses of Clinical Medicine and Clinical Surgery shall be attended at a recognised Public General Hospital, possessing distinct staffs of Physicians and of Surgeons, and containing on an average not less than eighty patients available for Clinical Instruction.\* Evidence must be produced that the Candidate has acted as Surgical Dresser and as Medical Clinical Clerk. The Dispensary Practice may be attended either at the Out-Patient Department of a General Hospital, or a a recognised Public Dispensary.

# The following Practical Courses are also required :-

(a) Three months' instruction in Practical Pharmacy, which shall include not less than twenty-five meetings, and which may be attended at a Medical School or Public Hospital Laboratory or Dispensary, or under a Registered Pharmaceutical Chemist, or Registered Medical Practitioner who dispenses medicines to his Patients.

(b) Practical Midwiffery, attendance for three months on the indoor practice of a Lying-in Hospital, and personal attendance on six Cases of Labour, or alternatively, attendance on twenty Cases of Labour, at least five of which shall have been conducted throughout under the direct super-

vision of a Registered Medical Practitioner.

The form of certificate for attendance should be as follows:-

- (c) That the Candidate has been properly instructed in Vaccination by a Public Vaccinator authorised by the proper Government Authority to grant Certificates of proficiency in Vaccination.
- 3. Students are recommended to pay particular attention to practical work in connection with all the departments of study, and to avail themselves of opportunities of acquiring practical acquaintance with special departments of Clinical Study, such as Diseases of the Ear, Throat, and Skin, Diseases of Children; and Operative Surgery. The Examinations will be conducted so as to test practical knowledge.
- 4. In addition to the Hospital Practice and Clinical Instruction specified above, the final year should be devoted to Clinical work at one or more recognised Public Hospitals or Dispensaries, and to the study of Special Diseases. Six months of the fifth year may be passed by the Student as a pupil to a Registered Practitioner possessing such opportunities of imparting practical

Of these eighty patients, sixteen may be special cases, such as Eye, Ear, Throat, Skin, Gynæcological, Venereal, &c.

knowledge as may be deemed satisfactory by the Committee of Management. The Student's regularity of attendance in the Wards and Out-patient Departments of the Hospitals and at the post-mortem examinations should be duly ascertained and noted on the Certificate.

5. The following Order of Study is recommended as conforming generally to the sequence of Examinations:—

First Summer.—Physics—Elementary Biology.

First Winter.—Chemistry—Practical Chemistry—Anatomy—Dissections.

Second Summer. - HISTOLOGY - DISSECTIONS.

Second Winter .- ANATOMY -- DISSECTIONS -- PHYSIOLOGY.

Third Summer .- Pathology -- Materia Medica -- Hospital Practice.

Third Winter .- SURGERY -- HOSPITAL PRACTICE, with CLINICAL SURGERY.

Fourth Summer.—MIDWIFERY and GYNÆCOLOGY—HOSPITAL PRACTICE, with CLINICAL SURGERY.

Fourth Winter.—Medicine—Hospital Practice, with Clinical Medicine.

Fifth Summer. — Clinical Medicine — Medical Jurisprudence and
Hygiene—Insanity—Practical Midwifery—Eye
Diseases.

Fifth Winter.—Hospital Practice—Dispensary—Fevers—Vaccination.

Students are also recommended to study in the fifth year the following subjects:—

OPERATIVE SURGERY,-DISEASES OF CHILDREN,-EAR AND THROAT,-SKIN.

## CHAPTER III.

PROFESSIONAL EXAMINATIONS.

#### GENERAL REGULATIONS.

- 1. Candidates shall be subjected to four Professional Examinations herein called the First Examination, the Second Examination, the Third Examination, and the Final Examination, to be conducted at separate times, partly in writing, and partly practically and orally.
- 2. Opportunities of entering for each of these Examinations are presented six times in each year—four times in Edinburgh and twice in Glasgow. A Candidate at any of these Examinations may present himself either in Edinburgh or Glasgow, irrespective of the

place at which he may have previously been examined. The periods of these Examinations for twelve months will be found in the Appendix, pp. 42-44.

3. An interval of not less than three months must elapse between the passing of any two successive Examinations; and an interval of two academic years must intervene between the passing

of the Second and of the Final Examination.

- 4. Candidates may enter for all the subjects of an Examination at one period, or may enter for and pass in any Division of subjects thereof, subject to the condition that the period and course of the entire Examination shall be certified as completed before the Candidate can enter for any Division thereof. A higher per centage of marks shall be required from Candidates entering for Divisions. Candidates who have passed in any subject of an Examination under the Divisional System shall not be at liberty to complete that Examination except under the Divisional System.
- 5. A Candidate entered for the First, Second, or Third Examinations may be reported by the Examiners as having passed the Examination "with Distinction"; and a Candidate entered for the Final Examination may be noted as having passed "with Honours."
- 6. Candidates who are unsuccessful at any Examination shall be remitted to their Studies for a period to be determined by the judgment of the Examiners, but not in any case less than three months.
- 7. No Candidate shall be admissible to Examination who has been rejected in the subjects of the Examination by any other Licensing Board within the three preceding months.
- 8. Applicants for admission to any of the Examinations are required, on entering, to lodge with the Inspector of Certificates a Schedule (forms of which are supplied) shewing the Courses they have attended qualifying for admission.
- 9. No Candidate can be held to be entered for any Examination till he has sent in the proper Schedule, proved his course of study, and paid the appropriate fee.
- 10. A Candidate may be exempted from Examination in any subject of the First, Second, or Third Examinations, on the production of a Certificate proving that he has passed an equivalent Examination for a Medical Qualification before one of the Boards specified in Chapter V., such Certificate specifying the subjects of Examination.

11. A Candidate admitted to any Examination on the footing of having passed in the subjects of the preceding Examination or Examinations at another Board shall pay the fees exigible for such preceding Examination or Examinations, in addition to the fee of the Examination for which he enters.

\*\* THE FOLLOWING ARE THE NAMES AND ADDRESSES OF THE INSPECTORS OF CERTIFICATES:—

In Edinburgh-Mr James Robertson, Solicitor, 1 George Square.

In Glasgow—Mr Alexander Duncan, B.A., Faculty Hall, 242 St Vincent Street.

Office Hours-10 A.M. to 4 P.M.; Saturdays, 10 A.M. to 1 P.M.

\*\*\* In applying for a copy of the Regulations, Candidates are requested to state whether they commenced Medical Study before or after 1st January 1892.

Note.—The new arrangement of subjects in the Second, Third, and Final Examinations came into operation on 1st October 1895; but Candidates who have been examined in the First, Second, or Third Examination before that date shall be at liberty to take up the subjects of these Examinations in the order in which they were placed previous to that date.

## FIRST EXAMINATION.

12. The First Examination shall embrace the following divisions of subjects—(1) Physics; \* (2) Chemistry; \* (3) Elementary Biology; \* and Candidates may take this Examination in these three divisions separately, or they may present themselves for the whole at one time, † at any period after Registration as Medical Students. This Examination should be passed before the beginning of the Second Winter Session.

<sup>\*</sup> See Synopses of range of subjects in Appendix I.

<sup>†</sup> Exemption may be granted to Candidates from re-examination in one or two subjects while failing in the other or others.

- 13. The Schedule for the Examination, containing evidence of instruction in each of these subjects, must be lodged with the Inspector one week before the Examination. Candidates must also produce their Certificates of Registration as Medical Students. The fee is payable at the same time.
- 14. The fees payable for admission to the First Examination shall be,—for the whole Examination, £5; for re-entry in all the subjects after rejection, £3; for re-entry in one or two subjects, after obtaining exemption from re-examination in the others £2, 10s.: On entering for one subject (forming a division) separately, £2, 10s.; and for each re-entry therein after rejection, £2.

# SECOND EXAMINATION.

- 15. The Second Examination shall embrace the following subjects, which must be entered for together:—Anatomy, and Physiology including Histology; and Candidates may be admitted to this Examination at the end of the second year \* of medical study.†
- 16. The Schedule for the Examination, including one Course of each of the subjects of Anatomy and Physiology, and Practical Anatomy (Dissections) twelve months, properly attested or proved by Certificates, must be lodged with the Inspector one week before the Examination. The fee is payable at the same time.
- 17. The fees payable for admission to the Second Examination shall be,—for the whole Examination, £5; for re-entry in both subjects after rejection, £3; for re-entry in one subject, after ob taining exemption from re-examination in the other, £2.

<sup>•</sup> Candidates who have passed the First Examination within three months from the date of Registration may be admitted to this Examination at the end of two Winter and one Summer Session; for others the "Second Year" shall mean the end of two Winter and two Summer Sessions.

<sup>†</sup> A Candidate may obtain exemption from re-examination in one subject while failing in the other.

# THIRD EXAMINATION.

18. The Third Examination shall embrace the following subjects, which must be entered for together:—Pathology, and Materia Medica and Pharmacy,\* at any period after the end of the third year of medical study.

19. The Schedule for this Examination, including one course each of Pathology and Materia Medica, properly attested or proved by Certificates, must be lodged with the Inspector one week before the Examination. The fee is payable at the same time.

20. The fees payable for admission to the Third Examination shall be,—for the whole Examination, £5; for re-entry in both subjects after rejection, £3; for re-entry in one subject after obtaining exemption from re-examination in the other, £2.

Note.—This Examination should be passed at or before the end of the fourth year of study.

# FINAL EXAMINATION.

21. The Final Examination shall not be passed earlier than the end of the fifth year of study, and shall not be taken within two years from the passing of the Second Examination, and shall embrace the following divisions of subjects,+—(1) Medicine, including Therapeutics, Medical Anatomy, and Clinical Medicine; (2) Surgery, including Surgical Anatomy, Clinical Surgery, and Diseases and Injuries of the Eye; (3) Midwifery and Diseases of Women and of New-born Children, and Medical Jurisprudence and Hygiene.‡

22. The Schedule for the Final Examination shall contain a summary of the entire Course of Study, and, properly attested or proved by Certificates, must be lodged with the Inspector not later than one week before the examination. At the same time there must be produced a Certificate to show that the Candidate is not less than twenty-one years of age. The fee is payable at the same time.

A Candidate may obtain exemption from re-examination in one subject while failing in the other.

<sup>†</sup> Candidates at the Final Examination may be examined on Diseases of Children, Diseases of the Ear and Throat, Insanity, Vaccination, &c.

<sup>†</sup> See Synopsis of range of Hygiene in Appendix I.

23. No Candidate can claim exemption from any subject of the Final Examination, unless such exemption has been obtained by the Candidate previously passing in the subject at this Board.

24. Candidates may take this Examination in divisions, at dif-

ferent times, or may take all the subjects at one time.

- 25. All Candidates shall be subjected, in addition to the Written and Oral Examinations, to Clinical Examinations in Medicine and Surgery, which shall include the Examination of Patients, Physical Diagnosis, Prescription-writing, the Clinical use of the Microscope, Examination of the Urine, and Urinary Deposits, Surgical Appliances, Bandages, Surface markings, &c. The Oral Examination shall include the recognition of pathological specimens.
- 26. The fees payable for admission to the Final Examination shall be,—for the whole Examination, £15; for re-entry in all subjects after rejection, £5: On entering for each division of subjects separately, £6, on re-entry in each division after rejection, £2.
- 27. Any Candidate admitted to the Final Examination, on the footing of having passed in the subjects of the First, Second, and Third Examinations at a recognised Board shall, on entering for the whole Examination, pay the full fee of £30; and in the event of his being unsuccessful, £20 will be returned to him at his first, and £25 at every subsequent rejection.

#### CHAPTER IV.

#### ADMISSION OF LICENTIATES.

Every Candidate on passing the Final Examination shall enter his name in the Registers of Licentiates of the three Co-operating Authorities, subscribe the following Declaration, and thereby bind and oblige himself to conform to its requirements:—"I hereby promise to maintain and defend all the rights and privileges of the Royal Colleges of Physicians and Surgeons of Edinburgh, and of the Faculty of Physicians and Surgeons of Glasgow, and to promote the interests of these Bodies to the utmost of my power. I also promise, under pain of forfeiture of these Diplomas, that I shall not advertise nor employ any other unbecoming method of obtaining practice, nor allow my name to be connected with any-

one who so acts, or who is engaged in any discreditable kind of medical work. I also promise to obey all the laws and bye-laws of the said Colleges and Faculty made or to be made, and to submit to the penalties therein imposed."

The inscription of the Candidate's name in the Registers of Licentiates of the three Co-operating Authorities shall constitute the act of admission as a Licentiate of each of them. A Licentiate who violates the obligations of his Entrance Declaration shall render himself liable to have his admission cancelled and his name struck off the Registers of Licentiates, and also off the Medical Register in respect of these Qualifications.

# CHAPTER V.

BOARDS WHOSE EARLIER MEDICAL EXAMINATIONS ARE RECOGNISED
BY THE CO-OPERATING AUTHORITIES.

- 1. The Royal College of Physicians of London.
- 2. The Royal College of Physicians of Edinburgh.
- 3. The Royal College of Physicians in Ireland.
- 4. The Royal College of Surgeons of England.
- 5. The Royal College of Surgeons of Edinburgh.
- 6. The Faculty of Physicians and Surgeons of Glasgow.
- 7. The Royal College of Surgeons in Ireland.
- 8. The Conjoint Boards of the Royal College of Physicians of London and Royal College of Surgeons of England; and of the Royal College of Physicians in Ireland and the Royal College of Surgeons in Ireland; and of the Royal College of Surgeons in Ireland and the Apothecaries' Hall, Dublin.

9. The Universities of the United Kingdom.

10. The Society of Apothecaries of London, under the provisions

of the Medical Act, 1886.

11. The Universities and Colleges in India and the British Colonies whose Matriculation Examinations have been recognised by the General Medical Council, whose curriculum of professional study fulfils the requirements of this Board, and whose diplomas

have been granted upon equivalent Examinations to those of this Board, and entitle to practise Medicine and Surgery in the Indian or Colonial dependency in which the Institution is situated.

12. Such foreign Universities as grant Medical and Surgical Degrees entitling to practise in the country in which they are granted as shall from time to time be recognised by the Co-operating Authorities, or by the General Medical Council as entitling to registration under the Medical Act of 1886, after a course of study equivalent both as regards duration and subjects to that required by this Board, and preceded by the passing of an Examination in Arts recognised by the General Medical Council.

# APPENDIX I.

# Synopses indicating range of subjects of Examinations.

## I.—PHYSICS.

Candidates will be expected to possess such elementary acquaintance with the following subjects as may be found in the textbooks:—

- Properties of Matter.—Impenetrability—Divisibility—Density
   Elasticity—Gravitation—Inertia—Different states of
  matter.
- Kinematics.—Various kinds of motion. Definition and measurement of velocity and acceleration. Composition and resolution of velocities.
- Kinetics.—Mass, density, force. Laws of motion. Weight. Energy, potential and kinetic work. Momentum. Conservation of energy. Gravity.
- Statics.—Composition and resolution of forces. Graphic representation of resultant. Centre of gravity. Equilibrium. Friction.
- Machines.—Functions of a machine. Simple pendulum. Mechanical powers. Balance.
- Hydrostatics.—Definition of a perfect fluid. Fluid pressure.

  Principle of Pascal and of Archimedes. Floating bodies.

  Specific gravity. Hydrometers. Motion of liquids in rigid and elastic tubes of uniform or of variable sectional area.

  Capillarity. Osmosis.
- Pneumatics.—Atmospheric pressure. Barometers. Boyle's law. Air pumps. Syphon.
- Sound.—Production and propagation of sound. Velocity of sound. Intensity, pitch, and quality of sound. Reflection of sound. Musical scale. Monochord. Organ pipes. Reed pipes. Tuning forks.

- Heat.—Its nature and effects. Temperature. Thermometers.

  Hygrometry. Specific heat. Latent heat. Conduction.

  Convection. Radiation.
- Light.—Intensity and velocity of light. Laws of reflection and refraction. Mirrors. Prisms. Lenses. Microscope. Spectroscope. Double refraction. Polarisation. Interference.
- Magnetism.—Laws of magnetic action. Poles. Lines of force.

  Distribution of magnetism. Magnetic field. Magnetic induction. Earth's magnetism.
- Statical Electricity.—Production of electricity by friction. Laws of electric action. Distribution of electricity on conductors. Potential. Capacity. Accumulators or condensers. Leyden jar. Electrophorus. Electrical machines. Electroscopes.
- Current Electricity.—Contact force. Galvanic cells. Ohm's law.
  Thermoelectricity. Heating and luminous effects of current. Electrolysis. Batteries. Voltameters.
- Electro-magnetism.—Magnetic action of current. Electro-magnets. Galvanometers.
- Current Induction.—Induction of currents by magnets or by currents. Self-induction. Induction coil. Principle of dynamo. Lenz's law. Telephone. Microphone. Electric Chronograph.

### II.—CHEMISTRY.

Classification of the Elements. Periodic system.

The Fundamental Laws of Chemistry.

Symbolic Notation.

Methods of determining Molecular Weights. Uses of Chemical Equations.

The more important Chemical Processes, viz.:—Filtration, Sublimation, Crystallisation, Distillation, Dialysis, Electrolysis, Oxidation, Reduction, and the apparatus required in these processes.

Classification and distinguishing characteristics of Acids, Bases, and Salts.

Preparation and Properties of the Non-metallic Elements, and their Compounds, with Hydrogen, Oxygen, and Sulphur, more especially such as are commonly used in Medicine and the Arts.

The Properties, Ores, and Metallurgy of the following Metals:—Potassium, Sodium, Barium, Calcium, Magnesium, Aluminium, Zinc, Manganese, Iron, Chromium, Silver, Copper, Mercury, Arsenic, Antimony, Bismuth, Lead, and Tin.

The most important Salts of these Metals, and the processes of their manufacture.

The Chemistry of Air and Water; the impurities commonly found therein, and the methods of their detection and removal.

Classification of the more important Organic Compounds.

The preparation and properties of the following:—Hydrocyanic Acid, Cyanides, Methane, Methylamine, Methyl Alcohol, Formic Acid; Ethane, Common Alcohol and Aldehyde; Acetic Acid, Common Ether, Chloral, Chloroform, Iodoform; Acetone.

Oxalic, Lactic, Tartaric, Malic, Citric, Gallic and Meconic Acids, and their chief Salts.

Glycerine; Saponification, Illic, Palmatic, and Stearic Acid. Carbohydrates; Fermentation.

Products of Distillation of Wood and Coal.

Benzine, Phenol, Anilin, Benzoic Acid, Benzoic Aldehyde.

Urea, Albumen, Gelatin.

Alkaloids—their characteristics and classification. Morphine, Quinine, Cinchonine, Strychnine, Brucine.

PRACTICAL CHEMISTRY.—Detection of the Acid and Base in a simple Salt.

# III.—ELEMENTARY BIOLOGY.

Candidates will be examined on the properties of Protoplasm; the Characteristics of Unicellular Organisms, and their relation to Multicellular Organisms; the main Distinctions between Animals and Plants; the characters of the chief classes of the Animal Kingdom.

Candidates will also be expected to have a practical knowledge of the main points in the Structure of the following forms:—

A. Amœba; Paramæcium; Hydra; Lobster or Crayfish; Frog; Pigeon:

B. Yeast plant; Bacterium; Penicillium; Fern; Rose; and to possess an elementary knowledge of the functions of the various Structures in the higher animals and plants enumerated.

## IV.—HYGIENE.

- 1. Air and Ventilation. Composition of the Atmosphere and its contaminations, with their sources and detection—Cubic space required in different circumstances—Methods of Ventilation.
- 2. Water-supply. Various sources—Storage—Amount to be supplied—Contaminations common to water-supply—Examination of water.
- Sewage and Sewage Gases. Ventilation of Sewers and Drains
   Solid refuse in towns and villages—Purification and disposal.
- 4. Practical Sanitation. Management of infectious cases—Sanitary arrangements—Conveyance of the sick—Administrative measures in outbreaks of infectious diseases—Hospital organisation.

# APPENDIX II.

Communications from Candidates in respect to Examinations in Edinburgh should be addressed to James Robertson, Solicitor, 1 George Square, Edinburgh. Communications respecting Examinations in Glasgow should be addressed to Alexander Duncan, B.A., Faculty Hall, St Vincent Street, Glasgow. Attention to this will save much time and trouble.

It is also requested that Candidates will attend punctually to the dates fixed by the Regulations for lodging their Schedules and Certificates and for paying the Fee. If these preliminaries are neglected by Candidates, their examinations may require to be postponed.

The safest mode of remitting money is by a Bank Draft, made payable at sight to the Inspector of Certificates, at an Edinburgh or Glasgow Bank, as the case may be, and crossed in the usual way. Please to observe that a Cheque on a private account cannot be received, as it is worth nothing till paid by the Banker on whom it is drawn.

THE following will be the Periods of the Conjoint Examinations in Edinburgh and Glasgow respectively for the year 1896-97:\*—

### EDINBURGH.

1896.		
Oct. 14	. Wednesday,	. First Professional, . Written.
,, 16	. Thursday,	. First Professional, . Oral.
	5. Friday,	. First Professional, . Oral.
		. First Professional, . Oral.
,, 19	. Monday,	. Second Professional, . Written.
,, 20	. Tuesday,	. Second Professional, . Oral.
,, 21	. Wednesday,	. Second Professional, . Oral.
	Thursday	Third and Final Professional, Written.
,, 28	3. Friday,	Third Professional, Oral. Final, Clinical.
,, 2	4. Saturday,	Third Professional, Oral. Final, Clinical.
,, 26	<ol> <li>Monday and following days,</li> </ol>	Clinical and

<sup>\*</sup> These dates will be adhered to as far as possible, but should it at any time be necessary, the dates of the Orals may be postponed.

# EDINBURGH.

				DINBUKUH.						
189	7.									
Jan.	13.	Wednesday,		First Professional,		Written.				
11	14.	Thursday,		First Professional,		Oral.				
,,,	15.	Friday,		First Professional,		Oral.				
"	16.	Saturday,		First Professional,		Oral.				
22	18.	Monday,		Second Professional,		Written.				
	19.	Tuesday,		Second Professional,		Oral.				
"	20.	Wednesday,		Second Professional,		Oral.				
"	21.	Thursday,		Third and Final Prof	fes-	Written.				
,,	22.	Friday,		Third Professional, Final,		Oral. Clinical.				
"	23.	Saturday,	. {	Third Professional,		Oral. Clinical.				
"	25.	Monday and for lowing days,		Final,	. {	Clinical and Oral.				
			E	DINBURGH.		9				

Mar.	31.	Wednesday, .	First Professional,		Written.
		Thursday, .	First Professional,		Oral.
,,	2.	Friday, .	First Professional,		Oral.
"	3.	Saturday, .	First Professional,		Oral.
23	5.	Monday, .	Second Professional,		Written.
,,,		W. F.	Second Professional,		Oral.
22	7.	Wednesday, .	Second Professional,		Oral.
"	8.	Thursday, .	Third and Final Profes sional,	-}	Written.
"	9.	Friday, .	Third Professional, Final,		Oral. Clinical.
"	10.	Saturday, .	Third Professional, Final,		Oral, Clinical.
"	.12.	Monday and fol- lowing days, .	Final	. {	Clinical and Oral.

# GLASGOW.

	GLASGOVI.	
Apl. 12. Monday,	. First Professional,	. Written.
" 13. Tuesday,	. First Professional,	. Oral.
" 14. Wednesday,	. First Professional,	. Oral.
,, 15. Thursday,	. First Professional,	. Oral.
,, 16. Friday,	. Second Professional,	. Written.
,, 17. Saturday,	. Second Professional,	. Oral.
,, 19. Monday,	. Second Professional,	. Oral.
,, 20. Tuesday,	. Third Professional,	. Written.
,, 21. Wednesday,	. Third Professional,	. Oral.
,, 22. Thursday,	. Final,	. Written.
,, 23. Friday and for	ol- ) Final	(Clinical and
lowing days	, . } Final,	· Oral.

# EDINBURGH.

189	7.			
July	7.	Wednesday, .	First Professional, .	Written.
"	8.	Thursday, .	First Professional, .	Oral.
		Friday, .	First Professional, .	Oral.
"	10.	Saturday, .	First Professional, .	Oral.
"	12.	Monday, .	Second Professional, .	Written.
			Second Professional, .	Oral.
"	14.	Wednesday, .	Second Professional, .	Oral.
,,	15.	Thursday, .	Third and Final Professional,	} Written.
"	16.	Friday, .	Third Professional, . Final,	Oral. Clinical.
"	17.	Saturday, .	Third Professional, . Final,	Oral. Clinical.
"	19.	Monday and fol- lowing days, .	Final,	{ Clinical and Oral.

# GLASGOW.

July	12.	Monday,		First Professional,		Written.
		Tuesday,		First Professional,		Oral.
,,	14.	Wednesday,		First Professional,		Oral.
,,	15.	Thursday,		First Professional,		Oral.
,,	16.	Friday,		Second Professional,		Written.
,,	17.	Saturday,		Second Professional,		Oral.
,,	19.	Monday,		Second Professional,		Oral.
		Tuesday,		Third Professional,		Written.
		Wednesday,		Third Professional,		Oral.
		Thursday,		Final,		Written.
					5	Clinical and
		Friday and for lowing days,	. }	rinai,	. 1	Oral.

# APPENDIX III.

The following Testimonials of having passed the Preliminary Examination in General Education are accepted by the Licensing Authorities, and entitle to Registration as Medical Students by the General Medical Council:—

## I.—Universities of the United Kingdom.

#### OXFORD:

Final Examination for a Degree in Arts.

Responsions. (Certificate to be supplemented by others showing that the required Mathematical subjects have been passed in).

Moderations.\*

Local Examination (Senior):\*
Local Examination (Junior):†

#### CAMBRIDGE:

Final Examination for a Degree in Arts. .

Previous Examination.\*
General Examination.\*

Local Examination (Senior):\*

Local Examination (Junior): †

Higher Local Examination.\*

#### DURHAM:

Final Examination for a Degree in Arts.

Preliminary Examination in Arts for Graduation in Medicine and Science.\*

Examination for Certificate of Proficiency.

## OXFORD AND CAMBRIDGE SCHOOLS' EXAMINATION BOARD:

Lower Certificate.† Higher Certificate. \*

#### LONDON:

Final Examination for a Degree in Arts or Science. Matriculation Examination. †

<sup>\*</sup> Certificates to include the subjects required for Registration.

<sup>+</sup> Certificate to include the subjects required for Registration, and which must be passed at one time.

## VICTORIA UNIVERSITY:

Preliminary Examination: \*
Final Examination for a Degree in Arts or Science.
Entrance Examination in Arts: \*

# University of Wales:

Matriculation Examination:\*
Final Examination for a Degree in Arts.

#### EDINBURGH:

Final Examination for a Degree in Arts.

Preliminary Examination for Graduation in Medicine and Surgery.

Preliminary Examination for Graduation in Arts or Science.\*

Local Examination (Senior Certificate): †

Local Examination (Junior Certificate): \*

#### ABERDEEN:

Final Examination for a Degree in Arts.

Preliminary Examination for Graduation in Medicine and Surgery.

Preliminary Examination for Graduation in Arts or Science.\*

Local Examination (Senior Certificate):†

Local Examination (Junior Certificate):\*

#### GLASGOW:

Final Examination for a Degree in Arts.

Preliminary Examination for Graduation in Medicine and Surgery.

Preliminary Examination for Graduation in Arts or Science.\*

#### ST ANDREWS:

Final Examination for a Degree in Arts or Science.

Preliminary Examination for Graduation in Medicine and Surgery.

Preliminary Examination for Graduation in Arts or Science.\*

Final Examination for the Diploma of L.L.A.

#### DUBLIN:

Final Examination for a Degree in Arts.

Public Entrance Examination.\*

Examination for the First, Second, Third, or Fourth Year in Arts.

(Certificate to be signed in the approved form by the Medical Registrar of the University).

#### ROYAL UNIVERSITY OF IRELAND:

Matriculation Examination.

Final Examination for a Degree in Arts or Science.

<sup>\*</sup> Certificate to include the subjects required for Registration, and which must be passed at one time.

<sup>†</sup> Certificates to include the subjects required for Registration.

II.—Other Bodies named in Schedule (A) to the Medical Act, 1858.

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS OF IRELAND.\*

III.—Examining Bodies in the United Kingdom, not included in Schedule (A) to the Medical Act, 1858.

#### EDUCATIONAL INSTITUTE OF SCOTLAND:

Preliminary Medical Examination (conducted on behalf of the Royal College of Physicians of Edinburgh, Royal College of Surgeons of Edinburgh, and Faculty of Physicians and Surgeons of Glasgow).†

## College of Preceptors:

Examination for a First-Class Certificate, or Second-Class Certificate of First or Second Division.

Preliminary Examination for Medical Students. †

### Intermediate Education Board of Ireland:

Junior or Middle Grade Examination.† Senior Grade Examination.‡

#### SCOTCH EDUCATION DEPARTMENT:

Leaving Certificates in each Grade and in Honours. All the subjects in the Lower Grade Certificates must have been passed at one time, but for the Honours and Higher Grade Certificates they may be passed at different times.

# IV .- Indian, Colonial, and Foreign Universities and Colleges.

The Certificates from the following Bodies must contain evidence that the Examination passed included all the subjects required by the General Medical Council, and must state that all the subjects were passed in at one time. Copies of the form of the required Certificate will be supplied by the Registrar of the Council for the purpose. In the case of Natives of India or other oriental countries, whose vernacular is other than English, an Examination in a classic oriental language may be accepted instead of an Examination in Latin.

<sup>\*</sup> The General Medical Council have recommended this Body to cease holding Preliminary Examinations.

<sup>†</sup> Certificate to include the subjects required for Registration, and which must be passed at one time.

<sup>#</sup> Certificates to include the subjects required for Registration.

UNIVERSITY OF CALCUTTA: Entrance Examination.

MADRAS BOMBAY Matriculation Examination.

PUNJAB UNIVERSITY ) Entrance Examination.

", M'GILL COLLEGE, MONTREAL Matriculation BISHOP'S COLLEGE, MONTREAL Examination.

College of Physicians and Surgeons of the Province of Quebec: Matriculation Examination.

University of Toronto

,, TRINITY COLLEGE, TORONTO
,, QUEEN'S COLLEGE, KINGSTON
VICTORIA COLLEGE, TORONTO

Matriculation Examination.

WESTERN UNIVERSITY OF ONTARIO:

COLLEGE OF PHYSICIANS AND SURGEONS OF ONTARIO

UNIVERSITY OF MANITOBA:

Preliminary and Previous Examinations.

University of Fredericton, New Brunswick: Matriculation Examination.

University of King's College, Windson, Nova Scotia:
Matriculation Examination.

Newfoundland Medical Board: Preliminary or Matriculation Examination.

University of Mount Allison College, New Brunswick, Canada:
Matriculation Examination.

College of Physicians and Surgeons of New Brunswick:
Matriculation Examination.

Dalhousie College and University, Halifax, Nova Scotia:
Matriculation Examination.

Provincial Medical Board of Nova Scotia: Preliminary Examination.

University of Melbourne: Matriculation Examination.

Examination in Arts; Senior Public Examination; Entrance Examination for Medicine and Science.

THE CAPE OF GOOD HOPE:
Matriculation Examination.

ADELAIDE: The Senior Public Examination.

CODRINGTON COLLEGE, BARBADOES:

Examinations qualifying for a Degree in Arts at the University of Durham.

University of Tasmania: Senior Public Examination. University of New Zealand: Preliminary Examination for Medical Students.

Otago: Preliminary Examination for Medical Students.

CEYLON MEDICAL COLLEGE: Preliminary Examination.

GERMANY AND OTHER CONTINENTAL COUNTRIES:

The German Abiturienten-Examen of the Gymnasia and Realgymnasia; Examinations entitling to the French Diplomas of Bachelier ès Lettres and Bachelier ès Sciences, and other corresponding Entrance Examinations to the Universities.

EGYPTIAN GOVERNMENT: Secondary Education Certificate. OLD REGULATIONS, applicable to Candidates who commenced Medical Study before 1st January 1892.

## CHAPTER I.

PRELIMINARY EXAMINATION IN GENERAL EDUCATION AND REGISTRATION.

Candidates for the Diplomas of the three Licensing Corporations must have passed the complete Examination in General Education, and have had their names inscribed in the Register of Medical Students instituted by the General Medical Council at the commencement of their professional studies. Students should therefore make sure that this has been done, as disappointment has sometimes arisen through ignorance or neglect on the part of the Candidate of this requirement.\* Foreign and Colonial Candidates require to be registered as Students, and when they have studied at recognised Institutions before coming to this country, subsequent to having passed a registrable preliminary examination, they are recommended when they register to apply to the Registrar to have their registration antedated, so as to cover their course of study.

## CHAPTER II.

PROFESSIONAL EDUCATION.

1. Candidates who commenced medical study before 1st January

<sup>\*</sup> It has been resolved by the General Medical Council that commencement of professional study shall not be antedated to a period before the whole of the Preliminary Examination in General Education has been passed, unless in very exceptional cases. All applications for special exceptions to the Regulations of the General Medical Council in regard to Preliminary Examination in General Education must be addressed to the Registrar of the General Council,—Mr W. J. C. Miller, B.A., 299 Oxford Street, London, W.,—that they may be submitted for decision to the Students' Registration Committee of the General Council.

1892 must have been engaged in Professional Study during forty-five months from the date of registration as Medical Students by the General Medical Council,\* which period shall include not less than Four Winter Sessions' attendance at one or more recognised Medical Schools.

2. The Candidate must produce certificates or other satisfactory evidence of having attended the following separate and distinct Courses of Instruction, at such Schools and under such Teachers as are recognised by the Co-operating authorities, the Certificates distinguishing the Sessions and the Schools in which they were severally attended:—

1 Course, .	Duration—at least Six months.†
	Twelve months.
1 Do.,	Six months.
1 Do.,	Three months.
1 Do.,	Three months.
1 Do.,	Six months, †
1 Do.,	Six months,
	Nine months, §
1 Do.,	Six months.
	Nine months, §
1 Do.,	Three months.
1 Do.,	Three months.
1 Do.,	Three months.¶
	1 Do.,

<sup>\*</sup> See the Laws relating to Registration. [Ch. I. p. 50.]

<sup>†</sup> In those Schools of England and Ireland in which two separate Courses of Lectures are delivered at separate hours, one on Anatomy, the other on Anatomy and Physiology, the former of these courses will be received as a course of Anatomy, and the other as a course of Physiology.

<sup>‡</sup> Students are expected to have dissected the human body at least once before entering for the Second Examination.

<sup>§</sup> Two courses of Lectures on Clinical Medicine, of three months each, if not simultaneous, will be held as equivalent to one course of six months. They must be attended during the period of attendance on the practice of the Hospital where they are delivered. The same rules will apply to Clinical Surgery.

<sup>¶</sup> A certificate of attendance for three months on the Post-Mortem Examinations at a General Hospital will be accepted in lieu of the Certificate of this course.

The number of Lectures certified as attended at any School should not be less than three-fourths of the total number of Lectures delivered in a Course.

- 3. The Candidate must also produce the following Certificates:—
- (a.) Of having attended not less than Six Cases of Labour, three of these to be conducted personally under the direct super-intendence of the Practitioner who signs the Certificate, who must be a Registered Medical Practitioner. It is, however, strongly recommended that where opportunity is given, the Candidate should either attend for three months the indoor practice of a Lying-in Hospital, or attend personally not less than twenty cases of Labour, and that at least the first six of these cases should be attended under the direct supervision of the Practitioner.
- (b.) Of having attended for three months prior to the Second Examination instruction in Practical Pharmacy,—the Certificate to be signed by the Teacher, who must be a Member of the Pharmaceutical Society of Great Britain, or the Superintendent of the Laboratory of a Public Hospital or Dispensary, or a Registered Medical Practitioner who dispenses medicines to his patients, or a Teacher of a Class of Practical Pharmacy.
- (c.) Of having attended for twenty-four months the Medical and Surgical practice of a Public General Hospital possessing distinct staffs of Physicians and of Surgeons, and containing, on an average, at least eighty In-patients\* available for clinical instruction.
- (d.) Of having attended, for six months (or three months, with three months' hospital clerkship), the practice of a Public Dispensary specially recognised by any of the Co-operating Authorities, or the out-patient practice of a recognised General Hospital, or of having acted for six months as pupil to a Registered Medical Practitioner who either holds such a public appointment, or has such opportunities of imparting practical knowledge as shall be satisfactory to the Co-operating Authorities. This attendance should be made after the student has passed the First and Second Examinations.

<sup>\*</sup> Of these eighty patients sixteen may be special cases, such as Eye, Ear, Throat, Skin, Gynæcological, Venereal, etc.

- (e.) Of having been instructed by a Registered Medical Practitioner in the Theory and Practice of Vaccination, and of having performed operations under the teacher's inspection, during a period of not less than six weeks.\*
- 4. The following Order of Study for a four-years' course is recommended as a guide to the Student, though not enjoined:—
- First Year.—Anatomy,—Elementary Histology,—Practical Anatomy,
  —Chemistry,—Practical or Analytical Chemistry.
- Second Year.—Anatomy,—Practical Anatomy,—Physiology,—Surgery,—Materia Medica,—Practical Pharmacy,—Hospital.
- Third Year.—PRACTICE OF MEDICINE,—CLINICAL SURGERY,—PRACTICAL ANATOMY, CLINICAL MEDICINE, PATHOLOGICAL ANATOMY, HOSPITAL.
- Fourth Year.—Surgery or Clinical Surgery,—Midwifery and Diseases of Women and Children,—Practice of Medicine or Clinical Medicine,—Medical Jurisprudence,—Practical Midwifery,—Vaccination,—Hospital.
- 5. It is strongly recommended to Students to avail themselves of any opportunities which they may possess of attending, in addition to the Courses of Instruction which are absolutely required, Practical or Tutorial Clinical instruction in Medicine, Surgery, and Gynæcology, Lectures on Ophthalmic, Aural, and Mental Diseases, also on Natural History and Comparative Anatomy; and of obtaining practical instruction in Operative Surgery, in the Use of the Microscope and its applications to Physiology and Medicine. Candidates for the Final Examination are also advised, so far as local circumstances will permit, to study Fevers for not less than three months, under recognised Clinical instructors.

<sup>\*</sup> By a regulation of the Privy Council, of date 1st December 1859, no one can be appointed a Public Vaccinator under the English Poor Law who does not produce a certificate of proficiency in Vaccination from a person authorised by the Privy Council to grant the same.

### CHAPTER III.

PROFESSIONAL EXAMINATIONS.

# GENERAL REGULATIONS.

- 1. Candidates shall be subjected to three Professional Examinations, herein called the First Examination, the Second Examination, and the Final Examination, to be conducted at separate times, partly in writing, partly practically, and partly orally.
- 2. Opportunities of entering for each of these Examinations will be presented six times in each year—four times in Edinburgh and twice in Glasgow. A Candidate at any of these Examinations may present himself either in Edinburgh or Glasgow, irrespective of the place at which he may have previously been examined. The periods of these Examinations for twelve months will be found in the Appendix, pp. 63, 64, 65.
- 3. Candidates may enter for all the subjects of an Examination at one time, and may pass either in all the subjects or in any in which they show adequate proficiency; or may enter for and pass in any division of subjects thereof, subject to the condition that the period and course of the entire Examination shall be certified as completed before the Candidate can enter for any division. A higher percentage of marks shall be required of Candidates entering for divisions. Candidates who have passed in any subject of an examination under the divisional system shall not be at liberty to complete that examination except under the divisional system.
- 4. Applicants for admission to any of the Examinations are required, on entering, to lodge with the Inspector of Certificates a schedule (forms of which are supplied) showing the Courses they have attended qualifying for admission, and if not entering for the whole of an Examination they must state which division of subjects they enter for.
- 5. A Candidate entering for the First or Second Examination may be reported by the Examiners as having passed the Examination "with Distinction," and a Candidate entered for the Final Examination may be reported as having passed "with Honours."

- 6. No Candidate can be held to be entered for any Examination till he has sent in the proper schedule, proved his course of study, and paid the appropriate fee.
- 7. The subjects of the Second Professional Examination should, as far as possible, be studied only after the First Examination has been passed; and similarly, the subjects of the Final Examination should, as far as possible, be studied only after the Second Examination has been passed. By adhering to this course the student will have his attention occupied by preparing for only one Examination at a time.
- 8. Candidates, qualified by having attended the necessary courses of study, may enter for two or more Examinations, to be passed successively at the same period, the condition being that failure to pass in all the subjects of the prior Examination precludes the Candidate from admission to the succeeding Examination. The necessary Schedule and Certificates must be lodged, and the fees for these respective Examinations paid, at the period of entering for the earliest of them. In the event of failure, the fee paid for any subsequent Examination to which a Candidate had been thereby precluded from admission shall on application be returned to the Candidate.
- 9. Candidates who are unsuccessful, either at the First, the Second, or the Final Examination, or any part of these Examinations, shall be remitted to their Studies for a period to be determined by the judgment of the Examiners, but not in any case less than three months.
- 10. No Candidate shall be admissible to Examination who has been rejected on the subjects of the Examination by any other Licensing Board within the three preceding months.
- 11. A Candidate for the Second Examination admitted as having passed in the subjects of the First Examination at another Board shall pay the fee of Five Guineas in addition to the fee payable in respect of the Second Examination or any division thereof; and a Candidate for the Final Examination admitted as having passed in the subjects of the First and Second Examinations at another Board shall pay the fee of Ten Guineas in addition to the fee payable in respect of the Final Examination or any division thereof.

\*\* THE FOLLOWING ARE THE NAMES AND ADDRESSES OF THE INSPECTORS OF CERTIFICATES: \*-

In Edinburgh—Mr James Robertson, Solicitor, 1 George Square.
In Glasgow—Mr Alexander Duncan, B.A., Faculty Hall, 242
St Vincent Street.

Office Hours,—10 a.m. to 4 p.m.; Saturdays, 10 a.m. to 1 p.m.

••• In applying for a copy of the Regulations, Candidates are requested to say whether the date of commencement of Medical Study was before or after 1st January 1892.

## FIRST EXAMINATION.

- 12. The First Examination shall embrace the two divisions (1) Chemistry; † (2) Elementary Anatomy; and Histology; § and shall take place not sooner than the end of the first year, including the period of a Winter and a Summer Session.
- 13. Candidates who desire to pass the First Professional Examination must fill up the requisite Schedule carefully, and submit to the Inspector of Certificates, not later than one week preceding the day of Examination, certificate of registration as a Medical Student, and evidence of attendance on one Course of Chemistry, one Course of Practical Chemistry, one course of Anatomy, and six months' Practical Anatomy.
- 14. The fees for admission to the First Examination, payable on Entry, are as follows:—For the whole examination taken at

† The Examination in Chemistry shall embrace the following particulars:—
Chemical Physics (meaning thereby Heat, Light, and Electricity), the
principal Non-Metallic and Metallic Elements, and their more common
combinations, also the leading alcohols, organic acids, ethers, carbohydrates and alkaloids.

‡ Elementary Anatomy shall embrace—Anatomy of the Bones and Joints of the whole body, and of the Muscles, chief Blood-vessels and Nerves of the upper and lower extremities.

§ Histology shall include a knowledge and recognition of the morphological elements and structure of Skin, Bone, Cartilage, Fibrous Tissue, Hair, Nails, Teeth, Blood, Muscle, Nervous Tissue, and the appearance and distribution of all the different forms of Ephithelium, along with a general knowledge of the properties of cells. The Examination on this subject will be oral and practical.

Candidates at a distance are requested to send their certificates if possible much earlier than the dates hereinafter stated, so as to give sufficient time for the exchange of one or two explanatory letters, as much disappointment has been occasioned by the discovery of defects in their Course of Study when it was too late to rectify them by the production of documents.

one time the sum of £5, 5s.; for re-entry in all subjects after rejection, £3, 3s.; for re-entry in one or two subjects, after obtaining exemption at this Board from re-examination in the others, £2, 2s.: For entering for one *division* of subjects separately, £3, 3s.; and for each re-entry therein after rejection, £2, 2s.

- 15. Any Candidate on whose behalf satisfactory evidence shall be produced of his having passed an equivalent Examination in any of the subjects of the First Examination before any of the Boards specified in Chap. V. (pp. 60-61), shall be exempt from examination in such subject or subjects.
- 16. The Certificates of Examination upon which any Candidate may claim exemption from any of the subjects of the First and Second Examinations shall, in every case, *specify* the subjects embraced in such examination.

# SECOND EXAMINATION.

17. The Second Examination shall embrace the three subjects of (1) Anatomy, (2) Physiology, (3) Materia Medica and Pharmacy,\* each of which shall constitute a division of the Examination, and may be entered for separately. The Examination shall not take place before the termination of the Summer Session of the second year of study, including the period of two Winters and two Summers. Candidates must produce to the Inspector Certificates or other evidence of Attendance on the prescribed Courses of Anatomy, Practical Anatomy, Physiology, Materia Medica and Practical Pharmacy [Chap. II. § 2], and lodge the requisite Schedule.

18. The fees for admission to the Second Examination, payable not later than one week before the day of examination, are as follows:—For the whole examination, £5, 5s.; for re-entry in all subjects after rejection, £3, 3s.; for re-entry in one or two subjects, after obtaining exemption from re-examination in the others at this Board, £2, 2s.: For entering for one subject separately, £2, 2s.; and for each re-entry therein after rejection, £2, 2s.

<sup>\*</sup> Materia Medica and Pharmacy shall embrace a knowledge of the sources of drugs, their physical characters and adulterations, and the processes for their pharmaceutical preparation.

19. Any Candidate who shall produce satisfactory evidence of having passed an equivalent Examination in any of the subjects of the Second Examination, before any of the Boards specified in Chap. V. (pp. 60-61), will be exempt from Examination in such subject or subjects; but no Examination before such Boards will be recognised as qualifying for such exemption, unless it is coextensive in its scope with the equivalent Examination of this Board, and unless it is the final or only Examination on the subject or subjects required by the Board at which it was passed—(see Chap. III., § 11, page 55).

## FINAL EXAMINATION.

- 20. The Final Examination shall embrace the three divisions of (1) The Principles and Practice of Medicine (including Therapeutics, Medical Anatomy, and Pathology) and Clinical Medicine; (2) The Principles and Practice of Surgery, (including Surgical Anatomy and Surgical Pathology) and Clinical Surgery; (3) Midwifery and Gynæcology, Medical Jurisprudence and Hygiene\* (which may be entered for separately at different times) and shall not take place before the termination of the full period of study—(See Chap. II. § 1).
- 21. Applications for Examination must be made to the Inspector of Certificates not later than one week previous to the day of Examination—(see page 63).
- 22. Every candidate when entering for the Examination held in Edinburgh must produce to the Inspector, Mr James Robertson, Solicitor, I George Square, Edinburgh, or when entering for the Examination held in Glasgow to Mr Alexander Duncan, B.A., Faculty Hall, 242 St Vincent Street, Glasgow,—1st, Satisfactory evidence of his having attained the age of twenty-one years; 2d, A Certificate of Registration in the Books of the General Medical Council (see Chap. I.); 3d, a Schedule of his entire course of study, along with the certificates of the classes enumerated in Chap. II. § 2, and the other certificates enumerated in Chap. II. § 3. Foreign and Colonial graduates are required to produce

<sup>\*</sup> A synopsis of the subjects examined on under Hygiene is given in Appendix 1.

certificates in evidence of their curricula and Preliminary Examination, in addition to the production of their diplomas.

- 23. The fees for admission to the Final Examination payable not later than one week prior to the Examination,\* are as follows:

  —For the whole Examination taken at one time, in the case of Candidates who have passed the First and Second Examinations of this Board, the sum of £15, 15s., of which £10, 10s. shall be returned to unsuccessful Candidates. For entering for each of the three divisions of subjects separately, £6, 6s., and on re-entry after rejection, £2, 2s. in respect of each division or part thereof. No part of the fee shall be repayable to Candidates entered under the divisional system.
- 24. Any Candidate admitted to the Final Examination on the footing of having passed in the subjects of the First and Second Examinations at a recognised Board shall, on entering for the whole Examination, pay the full fee of £26, 5s.; and in the event of his being unsuccessful, £15, 15s. will be returned to him at his first, and £21 at every subsequent rejection.
- 25. On the Candidate complying with the foregoing Regulations, the Inspector shall give him an Order authorising the Examiners to take him on trial.
- 26. Candidates shall not be exempted from examination in any of the subjects of the Final Examination, though some of them may have formed part of Examinations passed before other Boards.
- 27. All Candidates shall be subjected, in addition to the Written and Oral Examinations, to Clinical Examinations in Medicine and Surgery, which shall include the Examination of Patients, Physical Diagnosis, the Clinical use of the Microscope, Examination of the Urine and Urinary deposits, Surgical Appliances, Bandages, Surface Markings, etc.
  - N.B.—Each of the three Professional Examinations requires one day for the written Examination. The Clinical and Oral Examinations will be held on a subsequent day.

<sup>\*</sup> Note.—Any sum already paid by a successful Candidate for the primary Examination of either of the Single or Double Qualifications, shall be credited to him in part payment for the conjoint Examination, and such a Candidate will be at once admitted to its Final Examination if he is otherwise eligible, and shall take up Materia Medica and Pharmacy along with the Final subjects.

## CHAPTER IV.

#### ADMISSION OF LICENTIATES.

Every Candidate on passing the Final Examination shall enter his name in the Registers of Licentiates of the three Co-operating Authorities, and thereby subscribe the following Declaration, and bind and oblige himself to conform to its requirements:—"I hereby promise to maintain and defend all the rights and privileges of the Royal Colleges of Physicians and Surgeons of Edinburgh, and of the Faculty of Physicians and Surgeons of Glasgow, and to promote the interests of these Bodies to the utmost of my power. I also promise, under pain of forfeiture of these Diplomas, that I shall not advertise nor employ any other unbecoming method of obtaining practice, nor allow my name to be connected with anyone who so acts, or who is engaged in any discreditable kind of medical work. I also promise to obey all the laws and bye-laws of the said Colleges and Faculty made or to be made, and to submit to the penalties therein imposed."

The inscription of the Candidate's name in the Registers of Licentiates of the three Co-operating Authorities shall constitute the act of admission as a Licentiate of each of them. A Licentiate who violates the obligations of his Entrance Declaration shall render himself liable to have his admission cancelled and his name struck off the Registers of Licentiates, and also off the Medical Register in respect of these Qualifications.

## CHAPTER V.

BOARDS WHOSE EARLIER EXAMINATIONS ARE RECOGNISED BY THE

- 1. The Royal College of Physicians of London.
- 2. The Royal College of Physicians of Edinburgh.
- 3. The Royal College of Physicians in Ireland.
- 4. The Royal College of Surgeons of Edinburgh.
- 5. The Faculty of Physicians and Surgeons of Glasgow.

- 6. The Royal College of Surgeons of England.
- 7. The Royal College of Surgeons in Ireland.
- 8. The Conjoint Boards of the Royal College of Physicians of London and Royal College of Surgeons of England; and of the Royal College of Physicians in Ireland and the Royal College of Surgeons in Ireland; and of the Royal College of Surgeons in Ireland and the Apothecaries' Hall, Dublin.
  - 9. The Universities of the United Kingdom.
- 10. The Society of Apothecaries of London, under the provisions of the Medical Act 1886.
- 11. The Universities and Colleges in India and the British Colonies whose Matriculation Examinations have been recognised by the General Medical Council, whose curriculum of professional study extends to not less than four years, and whose diplomas have been granted upon equivalent Examinations to those of this Board and entitled to practise Medicine or Surgery in the Indian or Colonial dependency in which the Institution is situated.
- 12. Such foreign Universities as grant Medical and Surgical Degrees entitling to practise in the country in which they are granted, as shall from time to time be recognised by the Cooperating Authorities, or by the General Medical Council as entitling to registration under the Medical Act of 1886, after a course of study equivalent both as regards duration and subjects to that required by this Board, and preceded by the passing of an Examination in Arts recognised by the General Medical Council.

# APPENDIX I.

Synopsis indicating range of subject of Examination.

#### HYGIENE.

- 1. Air and Ventilation. Composition of the Atmosphere and its contaminations, with their sources and detection—Cubic space required in different circumstances—Methods of Ventilation.
- 2. Water-supply. Various sources—Storage—Amount to be supplied—Contaminations common to water-supply—Examination of water.
- Sewage and Sewage Gases. Ventilation of Sewers and Drains
   Solid refuse in towns and villages—Purification and disposal.
- 4. Practical Sanitation. Management of infectious cases—Sanitary arrangements—Conveyance of the sick—Administrative measures in outbreaks of infectious diseases—Hospital Organisation.

# APPENDIX II.

- Communications from Candidates in respect to Examinations in Edinburgh should be addressed to James Robertson, Solicitor, 1 George Square, Edinburgh. Communications respecting Examinations in Glasgow should be addressed to Alexander Duncan, B.A., Faculty Hall, St Vincent Street, Glasgow. Attention to this will save much time and trouble.
- It is also requested that Candidates will attend punctually to the dates fixed by the Regulations for lodging their Schedules and Certificates [Chap. III. 4, 13, 17, 21] and for paying the Fee [Chap. III. 14, 18, 23]. See also the Note to page 56, relating to Candidates who are at a distance. If these preliminaries are neglected by Candidates, their Examinations may require to be postponed.
- The safest mode of remitting Money is by a Bank Draft, made payable at sight to the Inspector of Certificates, at an Edinburgh or Glasgow Bank, as the case may be, and crossed in the usual way, or by Post-Office Order. Please to observe that a Cheque on a private account cannot be received, as it is worth nothing till paid by the Banker on whom it is drawn.

THE following will be the Periods of the Conjoint Examinations in Edinburgh and Glasgow respectively, for the year 1896-97: \*-

			EDIN	NB	URGH.		
1890	6.						
October	14,	Wednesday	7,	-	First Professional,	-	Written.
,,	15,	Thursday,	-	-	First Professional,	-	Oral.
,,	16,	Friday,	- 111	-	First Professional,	-	Oral.
"	17,	Saturday,	-	-	First Professional,	-	Oral.
"	19,	Monday,	-	-	Second Professional,	-	Written.
					Second Professional,		
					Second Professional,		
"	22, {	Thursday,		-	Final,		Written.
"	23, (	Friday, and	follo	WI	ng days, Clinical a	nd	Oral.

<sup>\*</sup> These dates will be adhered to as far as possible, but should it at any time be necessary, the dates of the Orals of the Second and Final Examinations may be postponed.

# EDINBURGH.

1897	7.						
January	13,	Wednesday	,	-	First Professional,	-	Written.
,,	14,	Thursday,	-	-	First Professional,	-	Oral.
,,	15,	Friday,	-	-	First Professional,	4	Oral.
,,	16,	Saturday,		-	First Professional,	-	Oral.
,,	18,	Monday,	-	-	Second Professional	,-	Written.
"	19,	Tuesday,	-	-	Second Professional	, -	Oral.
"	20,	Wednesday	,	-	Second Professional	, -	Oral.
"	21, 5	Thursday,	-	-	Final, Clinical	-	Written.
,,,,,	22, \	Friday, and	l follo	wii	ng days, Clinical	and	Oral.

# EDINBURGH.

March	31,	Wednesday,	-	First Professional, -	Written.
April	1,	Thursday, -	-	First Professional, -	Oral.
,,	2,	Friday, -	-	First Professional, -	Oral.
,,	3,	Saturday, -	-	First Professional, -	Oral.
"	5,	Monday, -	-	Second Professional,-	Written.
,,	6,	Tuesday, -	-	Second Professional, -	Oral.
,,	7,	Wednesday,	-	Second Professional, -	Oral.
,,	8, 5	Thursday, -	-	Final,	Written.
"	9, 1	Friday, and fol	lowin	ng days, 'Clinical and	Oral.

# GLASGOW.

April	12,	Monday,	-	-	First Professional, -	Written.
,,	13,	Tuesday,	-	-	First Professional, -	Oral.
"	14,	Wednesday	,	-	First Professional, -	Oral.
,,	15,	Thursday,	-		First Professional, -	Oral.
,,	16,	Friday,	-	-	Second Professional,-	Written.
"	17,	Saturday,	-	-	Second Professional, -	Oral.
"	19,	Monday,	-	-	Second Professional, -	Oral.
	22, (	Thursday,	-	-	Final,	Written.
"	23,	Friday, and	d fol	lowi	ng days, - Clinical and	Oral.

# EDINBURGH.

189	7.				
July	7,	Wednesday,	-	First Professional, -	Written.
,,	8,	Thursday, -	-	First Professional, -	Oral.
,,	9,	Friday, -	-	First Professional, -	Oral.
"	10,	Saturday, -	-	First Professional, -	Oral.
"	12,	Monday, -	-	Second Professional,-	Written.
"	13,	Tuesday, -	-	Second Professional, -	Oral.
"	14,	Wednesday,	-	Second Professional,	Oral.
,,				Final,	
,,	16, \	Friday, and foll	lowin	ng days, Clinical and	Oral.

# GLASGOW.

July	12,	Monday,	-	-	First	Profe	ssional,	-	Written.
"	13,	Tuesday,	-	-	First	Profe	ssional,	-	Oral.
"	14,	Wednesda	y,	-	First	Profe	ssional,		Oral.
,,	15,	Thursday,	-		First	Profe	ssional,	-	Oral.
"	16,	Friday,	-	-	Secon	d Pro	fessiona	1,-	Written.
,,	17,	Saturday,	-	-	Secon	d Pro	fessiona	1, -	Oral.
,,	19,	Monday,	-	-	Secon	d Pro	fessiona	1, -	Oral.
,,	23, (	Friday,	-	-	Final,	-	-	-	Written.
"	24, \	Saturday,	and	follo	wing o	lays,	Clinical	and	Oral.

# APPENDIX III.

SUBJECTS OF PRELIMINARY EXAMINATION REQUIRED BY THE GENERAL MEDICAL COUNCIL TO BE PASSED BY STUDENTS WHO COMMENCED MEDICAL STUDY BEFORE 1ST JANUARY 1892.

No person shall be allowed to be registered as a Medical Student unless he shall have previously passed a Preliminary Examination in the subjects of General Education as specified in the following list:—

- (1.) English Language, including Grammar and Composition;
- (2.) Latin, including Grammar, Translation from specified authors, and Translation of easy passages not taken from such authors;
- (3.) Mathematics, comprising (a) Arithmetic; (b) Algebra, as far as Simple Equations inclusive; (c) Geometry, including the first book of Euclid, with easy questions on the subject-matter of the same;\*
- (4.) † Elementary Mechanics of Solids and Fluids, comprising the Elements of Statics, Dynamics, and Hydrostatics;
- (5.) One of the following Optional Subjects:—(a) Greek;
  (b) French; (c) German; (d) Italian; (e) any other Modern Language; (f) Logic; (g) †Botany; (h) †Zoology; (i) †Elementary Chemistry.

<sup>\*</sup> After January 1st, 1892, Geometry shall include the subject matter of Euclid, Books I., II., and III., with easy deductions.

<sup>†</sup> These subjects ceased to be subjects required for registration after January 1st, 1892.

<sup>\*\*\*</sup> On and after 1st January 1892, these subjects must have been passed at one

Examination, but the rule shall not apply to Students who, previous to that
date, had passed a part of any of the Preliminary Examinations recognised
by the Council, nor to Students who pass Examinations for Graduation in
Arts of any of the Universities recognised.

# TEACHING INSTITUTIONS

From which the Triple Qualification Board receives Certificates, subject to compliance with the foregoing Regulations.

#### SCOTLAND.

Edinburgh—Medical School of the Royal Colleges of Edinburgh; The University; Medical College for Women; Medical School for Women; Edinburgh Academy.\* Glasgow—University; Anderson's College Medical School; St Mungo's College; Western Medical School; and Queen Margaret College of Medicine for Women. Aberdeen—University. St Andrews—University. Dundee—University College. Polmont—Blairlodge School.\*

#### ENGLAND.

London—St Bartholomew's; St Thomas'; Guy's; St George's; London Hospital; Middlesex; University College; King's College; Westminster; Charing Cross; London School of Medicine for Women; St Mary's Hospital Medical School, London. Provincial:—The Mason Science College, Birmingham. University College, Bristol. Cambridge Medical School. Yorkshire College, Leeds. University College, Liverpool. Owen's College, Manchester. College of Medicine, Newcastle-upon-Tyne (University, Durham). Durham College of Science.† Oxford University School. Sheffield School of Medicine. Frith College, Sheffield.† University of Wales. University College of North Wales, Bangor. University College of South Wales and Monmouthshire, Cardiff. University College of Wales, Aberystwyth.

#### IRELAND.

Dublin—School of Surgery, Royal College of Surgeons in Ireland; Trinity College School of Physic; Carmichael School of Medicine; The Catholic University School of Medicine; St Vincent's Hospital, Dublin (Lectures on Medicine and Surgery); Royal

<sup>\*</sup> For Chemistry and Physics only. † For Chemistry, Physics, and Biology.

College of Science, and University College, Stephen's Green.\*

Provincial—The Queen's Colleges of Belfast, Cork, and Galway.

## GENERAL HOSPITALS IN THE UNITED KINGDOM.

SCOTLAND.

Royal Infirmary of Edinburgh. Glasgow: Royal Infirmary, Western Infirmary, and Victoria Infirmary. Royal Infirmary of Aberdeen. Dundee Royal Infirmary.

#### ENGLAND.

London-St Bartholomew's; St Thomas'; Westminster; Guy's; St George's; London; Middlesex; University College; Charing Cross; King's College; St Mary's; Royal Free Hospital (for Women); Women's Medical Mission Dispensary (for dispensary practice). Provincial: - Bath Royal United Hospital. Bedford General In-Berkshire Royal Hospital, Reading. Birmingham: General Hospital and Queen's Hospital. Bradford Infirmary. Bristol Royal Infirmary and General Hospital. Addenbrooke's Hospital, Cambridge. Derbyshire General Infirmary. Devon and Exeter Hospital. Gloucester General Infirmary. Hants County Hospital. Hull Royal Infirmary. Kent and Canterbury Hospital. Leeds General Infirmary. Leicester Infirmary. Liverpool: Royal Infirmary; Northern Hospital; and Royal Southern Hospital. Manchester Royal Infirmary. Newcastle upon-Tyne Royal Infirmary. Norfolk and Norwich Hospital. Northampton General Infirmary. Nottingham General Hospital. Radcliffe Infirmary, Oxford. South Devon and East Cornwall Hospital, Plymouth. Royal Portsmouth Hospital. Salisbury General Infirmary. Salop Infirmary. Sheffield General Infirmary and Public Hospital and Dispensary. Staffordshire General Infirmary. North Staffordshire Infirmary and Eye Hospital, Hartshill. Sussex County Hospital. Wolverhampton and Staffordshire General Hospital. Worcester Infirmary.

<sup>\*</sup> For Chemistry, Physics, and Biology.

#### IRELAND.

Dublin—Richmond, Whitworth, and Hardwicke Government Hospitals; Dr Steevens'; City of Dublin; Mercer's; Meath; Jervis Street; Sir Patrick Duns'; St Vincent's; Adelaide; Mater Misericordiæ. Provincial:—Belfast Royal Hospital. Cork South Charitable Infirmary and County Hospital; and North Charitable Infirmary and City of Cork General Hospital. Galway County Infirmary and Town Hospital.

Teachers not connected with a Medical School whose teaching

has been specially recognised—

James Henry Allan, Teacher of Materia Medica and Pharmacy, Liverpool.

J. R. Johnson, Royal Infirmary, Liverpool, for Chemistry and Practical Chemistry.

L. R. C. Tichborne, Ph. D., Dublin, for Practical Chemistry.

Andrew Thomson, D.Sc., Perth Academy, Perth, for Chemistry, Practical Chemistry, and Physics.

A. B. Robertson, Coatbridge Technical School and Mining College, for Chemistry.

### SCHOOLS AND HOSPITALS IN THE BRITISH DEPENDENCIES AND COLONIES.

India—The Medical College of Bengal; The Medical College of Madras; The Grant Medical College, Bombay. Ceylon—Medical College. Canada—The University of Toronto; The Trinity Medical School, Toronto; The University of Victoria College, Toronto; The University of M'Gill College, Montreal; Bishop's College, Montreal; The Royal College of Physicians and Surgeons, Kingston; Kingston Women's Medical College; The University of Laval, Quebec; The Western University, London, Ontario; The University of Manitoba; Dalhousie College and University, Halifax, Nova Scotia. Australia—The University of Melbourne; The Melbourne Hospital; The Alfred Hospital, Melbourne; The University of Sydney; The Sydney Infirmary; Prince Alfred Hospital, Sydney; University of Adelaide; Adelaide Infirmary. Tasmania—The General Hospital, Hobart Town; The General Hospital, Launceston. New Zealand—University of Otago, Dunedin Hospital.

### IN FOREIGN COUNTRIES.

Paris, Montpellier, Strasburg, Berlin, Vienna, Heidelberg, Bonn, Göttingen, Würzburg, Leyden, Liége, Pavia, Pisa; Royal Caroline Institute, Stockholm; Copenhagen. New York—The University; The College of Physicians and Surgeons; The Bellevue Hospital Medical College; Women's Medical College of the New York Infirmary. Philadelphia—The University of Pennsylvania; Jefferson Medical College; Women's Medical College of Pennsylvania, Harvard University; Cambridge, Boston. Cooper Medical College, San Francisco.

### BURSARIES AND PRIZES.

# Wood Bursary of Royal College of Physicians of Edinburgh.

1. A Wood Bursary of £60 shall be awarded annually.

Note.—This amount shall be paid in three annual instalments of £20 each.

2. All students, male or female, who, within the previous twelve months, have passed the subjects of the Preliminary Medical Examination qualifying for registration as medical students, shall be eligible to enter for competition for the Bursary.

3. The subjects of Examination shall be Latin, Greek, Mathematics, and English, in which a high proficiency must be attained.

- 4. The Special Examination for the Wood Bursary shall be held annually at the Royal College of Physicians, Edinburgh, on the 20th October or the following day. Intending Competitors must send their names to the Secretary of the College on or before the 15th October.
- 5. The successful candidate shall be bound to study, during the three years of holding the Bursary, at the Edinburgh Medical School, either intra or extra mural of the University.

Note.—On applying for each annual instalment, the holder of the Bursary must present two Class Tickets as evidence that he is pursuing his studies at the Edinburgh Medical School.

### Dr Thomas Hill Pattison's Bursary.

A special competitive examination will be held in the Royal College of Physicians of Edinburgh, on the 30th day of July 1897, to determine the award of the Pattison Bursary. Only Male Students who have passed the Examination in Anatomy- and

Physiology for the Triple Qualification, between October 1896 and July 1897 inclusive, and who have completed an annus medicus during that period in Edinburgh, are entitled to present themselves as candidates. The Examination will be conducted by written papers on the subjects of Anatomy and Physiology. The Bursary is tenable for one year. Its value is about £31. Gentlemen intending to compete must send in their names to the Secretary of the College on or before the 15th July 1897.

### Bathgate Memorial Prize.

The President and Fellows of the Royal College of Surgeons have to intimate that the Solid Gold Medal presented by Colonel William Lorimer Bathgate, in memory of his late father, William M'Phune Bathgate, F.R.C.S., Edin., formerly Lecturer on Materia Medica, Therapeutics, and Dietetics, in the Edinburgh School of Medicine, known as the "Bathgate Memorial Prize" shall be awarded annually after a Special Written Examination in Materia Medica and Therapeutics, to be held on the last Saturday of October of each year.

The Examination for the current year will accordingly take place on Saturday the 31st day of October 1896, and intending Candidates will make application to James Robertson, Esq., Solicitor, 1 George Square, Edinburgh, not later than one week before that date.

The Competition shall be open to all Candidates who have passed the Second Professional Examination under the Old Regulations or the Third Examination under the New Regulations for the Triple Qualification of the Royal Colleges of Surgeons and Physicians of Edinburgh and Faculty of Physicians and Surgeons of Glasgow during the current year, and who have attended the course of Materia Medica required by said Board at the School of Medicine of the Royal Colleges.

No fee will be charged for entry.

### WINNERS OF MEDAL.

1891. Patrick M'Elwaine.

1892. Grace Haxton Giffen.

1893. Sarah Brown M'Mordie,

1894. Harry Bennet Palmer.

1895. Patrick Pearse.

QUESTIONS in Materia Medica for Bathgate Gold Medical Examination, 28th October 1893.

- 1. Describe the physiological actions and therapeutic uses of free Phosphorus. What officinal preparations contain it, and what are their doses?
- 2. Mention the officinal alkaloidal preparations obtained, directly or indirectly, from Belladonna. State the doses of those used internally, and give their principal physiological actions and therapeutic uses.
- 3. What are suppositories? Mention four that are officinal, each with a different active ingredient. State the active ingredient and its amount. Give the therapeutic uses of each of those mentioned.

### Questions set in 1894.

- 1. Give the source, pharmacological actions, and therapeutic uses of Pilocarpine. In what forms and in what doses may it be administered?
- 2. Describe the pharmacological actions and therapeutic uses of Oil of Turpentine. Mention its doses, and the officinal preparations into which it enters.
- 3. Give the composition of the officinal Hypodermic Injections; mentioning in each case the amount of active ingredient. Give the therapeutic uses of each.

### Questions set in 1895.

- 1. Give the sources, pharmacological actions, and therapeutic uses of Apomorphine. In what preparation and in what doses is it used?
- 2. Describe the pharmacological actions and therapeutic uses of Oil of Turpentine. In what doses is it administered? Mention the officinal preparations into which it enters, and the dose of the one used internally.
- 3. Give the composition of the officinal suppositories which contain no Oil of Theobrama. State the amount of active ingredient in each, and give the therapeutic uses of each.

# Conditions of Surgical Essay Prize to be awarded by the Royal College of Surgeons of Edinburgh in October 1896.

- 1. The Prize shall be Thirty-five Guineas, and is open to all Fellows and Licentiates of the College, except Fellows who are Members of the President's Council.
- 2. The Essay shall be on a Surgical subject, the selection of which is left to the Writer.
- 3. The competing Essays, with any drawings, preparations, &c., must be addressed to the Secretary, and be delivered to the Officer, at the Hall of the College, on or before 30th September 1896.
  - 4. The Essays must be written in English.
- 5. Each Essay must be distinguished by a Motto, and be accompanied by a sealed envelope having the same Motto outside, and containing the name and address of the Author.
- 6. The manuscript and all accompanying drawings and preparations, &c., of the successful Essay shall become the property of the College. Subject to the sanction of the College, the Author may publish the Essay.
- 7. Applications for the return of unsuccessful Essays, drawings, and preparations, &c., must be made to the Secretary within two months from the adjudication of the Prize.
- 8. The necessary arrangements for the adjudication of the Prize shall be made by the President's Council, and the name of the successful competitor will be announced at the Annual Election Meeting of the College in 1896, and intimation made to him thereafter.
- 9. The President's Council may withhold the Prize should the Essays sent in for competition seem unworthy of it.
- 10. A Prize shall be awarded in October 1897 for an Essay upon a subject to be yet fixed by the College, and particulars of which may be obtained from Mr Robertson, 1 George Square. Competing Essays must be lodged by 30th September 1897.

### THE DIPLOMA IN PUBLIC HEALTH

OF

THE ROYAL COLLEGES OF PHYSICIANS AND SURGEONS OF EDINBURGH, AND THE FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.

### NOTICE.

The Royal College of Physicians of Edinburgh, The Royal College of Surgeons of Edinburgh, and the Faculty of Physicians and Surgeons of Glasgow have made arrangements by which, after one series of Examinations held in Edinburgh or in Glasgow, or in Edinburgh and Glasgow, Candidates may obtain a Diploma in Public Health registrable under the Medical Act, 1886.

### REGULATIONS.

1. Every Candidate for the Examination for this Diploma must have been in possession for at least twelve months of a Qualification registrable under the Medical Acts.

2. Attendance by Candidates on Special Courses of Instruction on all the subjects included in the examination for the Diploma is recommended by the Board; but it is imperative that every Candidate (except those exempted under Sect. 4), after he has obtained a Registrable Qualification, shall have attended six months' practical instruction in a Sanitary Science Laboratory or Laboratories, British or Foreign, approved by the Board, in which Chemistry, Bacteriology, and the Pathology of the Diseases of Animals transmissible to Man are taught, and the Certificate of such attendance must bear that the Candidate has worked in such Laboratory

for at least fifteen hours per week, and must specify that he has conducted analyses of Air, Water, Sewage, and Foods.

3. Every Candidate shall also be required to produce evidence of either having, after obtaining a Registrable Qualification, practically studied for six months the duties of Outdoor Sanitary Work "(a) In England and Wales, either under the Medical Officer of Health of a county or of a single Sanitary District, having at the date of the last census a population of not less than 50,000, or the Medical Officer of Health of a combination of two or more Sanitary Districts having collectively at the date of the last census a population of not less than 35,000; or (b) In Scotland or Ireland, under the Medical Officer of Health of a County or of one or more Sanitary Districts having at the date of the last census a population of not less than 30,000; or (c) Under a Medical Officer of Health who is a Teacher in the Department of Public Health of a recognised Medical School. The certificate of an Assistant Officer of Health of a County or a large Urban District may be accepted, provided the Medical Officer of Health of the County or District consents to the Assistant Officer giving such instruction. He is also recommended to avail himself of any opportunities which may be afforded of obtaining practical instruction in the diseases of animals transmissible to man.

"\*\*\* Any Candidate who shall produce evidence that he has himself held an appointment as Medical Officer of Health under conditions not requiring the possession of a Special Sanitary Diploma shall be exempt from this Regulation.

"4. Every Candidate shall have produced evidence that he has attended the Clinical Practice of a Hospital for Infectious Diseases recognised by one of the Licensing Bodies, provided that such a course of instruction may have been taken as part of the Curriculum for his Registrable Qualification in Medicine, Surgery, and Midwifery.

"5. The Rules as to Study in sects. 2, 3, and 4 shall not apply to (a) Medical Practitioners registered, or entitled to be registered, on or before January 1st, 1890."

6. Candidates shall be subjected to two Examinations, herein called the First Examination and the Second Examination, which shall comprise Laboratory and practical work \* as well as Written and Oral Examinations.

7. The First Examination shall include the following subjects in their relation to Public Health:—(a) Laboratory work;

(b) Chemistry; (c) Physics; (d) Meteorology.

- 8. The Second Examination shall embrace (a) Report on Premises visited; (b) Examination at Fever Hospital; (c) Examination at Public Abbatoir; (d) Epidemiology and Endemiology; (e) Vital Statistics and Sanitary Law; (f) Practical Sanitation.
  - 9. The First Examination shall take place as follows:-

### EDINBURGH.

Tuesday, October 6, 1896. Tuesday, May 4, 1897.

(The Examination in October 1897 will be held in Glasgow.)

The Second Examination shall take place on the Thursday succeeding these dates.

N.B.—One day shall be devoted to practical examination in a Laboratory.

The Written and Oral Examinations shall follow on a subsequent day.

10. Candidates may present themselves for both Examinations at one period, or for either Examination separately. The fee shall be £10, 10s. for both Examinations, or £5, 5s. for either Examination taken separately. A fee of £3, 3s. shall be payable by unsuccessful Candidates on being re-admitted to either Examination. These fees, along with applications for admission to examination, shall be lodged with Mr James Robertson, Solicitor, 1 George Square, Edinburgh, when entering for examination in Edinburgh, and with Mr Alexander Duncan, B.A., Secretary of Faculty of Physicians and Surgeons of Glasgow, 242 St Vincent Street, Glasgow, when entering for examination in Glasgow, not later than fourteen days before the Examination.

11. Every Candidate on passing both Examinations shall

<sup>\*</sup> For Synopsis of Laboratory Examination, see page 79.

receive a Diploma, and the Diploma shall be known as the "Diploma in Public Health of the Royal Colleges of Physicians and Surgeons of Edinburgh and Faculty of Physicians and Surgeons of Glasgow." The holder is entitled to have the Diploma entered on the Medical Register in addition to any other Diploma or Diplomas in respect of which he is registered.

12. No Candidate shall be admissible to Examination who has been rejected by any other Qualifying Board within the six preceding months.

### SYNOPSIS of the Subjects of Examination.

FIRST EXAMINATION.

I. The Laboratory Examination shall be estimated as a whole, and shall embrace the following:—

- (1) Analysis of Air—Temperature, Pressure, Humidity, Carbonic Acid, Ozone, Micro-organisms, Organic Matter, Noxious Emanations.
- (2) Analysis of Water for Drinking Purposes, including qualitative and quantitative estimation of total solids (Lime, Magnesia, Chlorides, Sulphates, Nitrates and Nitrites, Ammonia, and Lead), and loss on ignition of solids—determination of Hardness, of Organic Impurities, and of Acidity and Alkalinity— Physical and Biological Examination.
- (3) Examination of Foods—Milk, Butter, Margarine, Flour, Bread, Starchy Foods, Sugar, Honey, Butcher Meat, Fish, Vegetables.
- (4) Examination of Beverages—Tea, Coffee, Cocoa, Alcoholic Beverages, Aërated Waters.
- (5) Examination of Condiments—Salt, Pepper, Mustard, Vinegar, and Preserves.
- (6) Gases—their Chemical Properties.
- (7) Detection of Poisons in articles of dress, decorations, and food.
- (8) Sewage—Analysis of Sewage and Effluents after treatment, and Chemistry of Sewage treatment.
- (9) Soils—Temperature, Humidity, Permeability, Chemical Composition, Gases of the Soil, Micro-organisms.
- (10) Disinfectants and Deodorisers—Chemical examination of the Materials, Determination of their comparative power.
- (11) Building Materials—Chemical and Physical Properties.
- (12) Bacteriology—Cultivation and recognition of Micro-organisms in relation to Epidemic and other Diseases.
- (13) Examination of Parasites and other Organisms infecting the Body and Human Food Stuffs.

II. Physics and Meteorology :-

(a) Physics.—Gases—Pressure, Volume, Temperature, Solubility in Liquids, Absorption of Solids, Diffusion, Movements of Air in relation to Ventilation, Instruments employed in relation thereto.

Liquids—Effects of Variations of Temperature, Pressure, Capillarity, Osmosis, Solution, Vapour, Movements of Liquids.

Elements of Dynamics of Solids and Fluids.

Heat—Temperature, Latent Heat, Specific Heat, Fusion, Boiling, Evaporation, Radiation, Conduction, Convection.

Electricity—Elementary facts regarding Electrical Currents; how developed by Galvanic Cells, or by induction, with their chief effects. The dangers of Currents at a high voltage. Electrolysis. The Hermite process.

(b) Meteorology.—Topographical, Atmospheric, and Climatic Influences in their relations to Health and Disease.

### SECOND EXAMINATION.

III. Epidemiology and Endemiology.—The general pathology of Epidemic, Endemic, and other morbid processes induced by environment. The causes, clinical history, diagnosis, prognosis, and prevention of Epidemic and Endemic Diseases, as well as of the Epizootics which affect man; of the Contagious or Infectious Diseases; and of those incidental to particular trades, or otherwise produced by the surroundings of the patient.

IV. Practical Sanitation.—(1) Site and Environment of Dwellings -Influence of Position, Aspect, and Climate; Meteorological and Geological Conditions; Soil and Drainage. (2) Water-supply and Conservancy-Quantity per head; Relative Eligibility of available Sources of Supply; Estimation of Yield; Methods of utilising various Sources of Supply; Storage, Subsidence, and Filtration; Distribution-General and Domestic; Causes, Detection, and Treatment of Contaminated Supply. (3) Construction of Public Buildings, Barracks, Hospitals, Schools, Factories, and Dwelling-Houses-Principles of Design and Construction, Warming and Ventilation, Characteristics and Fitness of various methods in use. (4) Excreta, Refuse, and Sewage-Character and Quantity of, in (a) Urban, (b) Rural Districts; Collection and Removal from (a) the Dwelling, (b) the Town or Village; Nature, Practical Details, and Maintenance of the several methods employed; Disposal—(a) Sanitary, (b) Insanitary methods; Precipitation, Filtration, Irrigation, Discharge; Design and General Principles of necessary works. (5) Establishments connected with Food Supplies—e.g., Dairies,

Creameries, Bakeshops. (6) Disposal of the Dead—Burial, Cremation. (7) General Principles of Sanitary Works—Character, Fitness, and Qualities of Materials (Brick, Cement, Earthenware, Iron, Lead); Sewers. (8) Infectious and Epidemic Diseases—Epizootics; Means of Prevention. (9) Disinfectants and Disinfecting Apparatus—Selection and Application. (10) Effects of Insanitary Conditions—Insufficient House Accommodation, Vitiation of Air, Impure Water, Bad or Insufficient Food. (11) Unhealthy Occupations—Means of mitigating or removing their unhealthiness. (12) Nuisances. (13) Examination of and Report on the Sanitary condition of premises to which the Candidate may be sent for the purpose.

V. Sanitary Law \*-Sanitary Administration.†

VI. Vital Statistics and Statistical Methods.—Leading facts as regards Population, Birth and Death Rates, Distribution of Diseases.

N.B.—The Examination in above subjects is both Written and Oral, the latter occupying one hour.

\* The Acts of Parliament, &c., embraced are Scotland. Public Health (Scotland) Act, 1867. Amending Acts on above, 1871, 1875, 1882. or, alternatively, Public Health (England) Act, 1875. or, alternatively, Public Health (Ireland) Act, 1874. in addition to The Rivers Pollution Act, 1876. Sale of Food and Drugs Act, 1875. Act amending do., 1879. Vaccination Acts, 1867-1871. Bakehouses Regulations Act, 1863. Alkali Acts, 1863-1874. Canal Boats Act, 1877. Contagious Diseases (Animals) Act, 1878. The Dairies, Cowsheds, and Milkshops Order, 1879. The Infant Life Protection Act, 1872. Factories and Workshops Act, 1878. Notification of Infectious Diseases Act, 1889. The Housing of the Working Classes Act, 1890.

Public Health Interments Act, 1879.

+ Sanitary Administration—Duties of Medical Officers of Health and Inspectors of Nuisances.

Model Byelaws.

The following is a LIST of BOOKS that may be of use to Candidates, but the selection of them is left to their own discretion:—

Physics.—Text Book of the Principles of Physics for Medical Students, by Alfred Daniell, D.Sc.

Meteorology. Handbook of Meteorology. ALEX. BUCHAN, LL.D.

Laboratory Work.-Kenwood's Public Health Laboratory Work.

Analysis of Air, Water, Bread, Milk, and Tea. J. Alfred Wanklyn, M.R.C.S.

Chemistry of Foods, Parts I. and II. James Bell, Ph.D.

Manual of Bacteriology (3d ed.), by Prof. E. M. CROOKSHANK, M.B.; or

Bacteria and their Products, by G. Sims Wood-HEAD, M.D., F.R.C.P.E.

Manuals of Public Health.—Handbook of Hygiene, by Dr Geo. Wilson.

Hygiene and Public Health. Louis C. Parkes, M.D.

Manual of Public Health (1890). Prof. A. Wynter Blyth.

Hygiene and Public Health. B. ARTHUR WHITELEGGE, M.D., B.Sc.

Dwelling-Houses, their Sanitary Condition and Arrangements (2d ed.), by Prof. Corfield, M.D.

The Construction of Healthy Dwellings, &c. Douglas Galton.

Sanitary Law.—Skelton's Public Health and Local Government Acts.

Fitzgerald's Epitome of the Laws affecting Health. Meat Inspection. Prof. Walley.

Vital Statistics .- FARR. ARTHUR NEWSHOLME.

# ROYAL COLLEGE OF SURGEONS OF EDINBURGH.

INCORPORATED 1505.

# Abstract of the Laws in reference to the Fellowship.

1. Every Candidate for the Fellowship, with the exception of those admissible under the old Constitution, with right to the Widows' Fund, and those hereinafter mentioned in section 2, shall be required to show that he is twenty-five years of age, and that he has for at least two years subsequent to the date of having obtained a qualification in Surgery specially recognised by the College\* been engaged in the study or practice of his profession; and before having his Petition laid before the College, shall be required to pass an examination as follows:—

On Principles and Practice of Surgery, Surgical Anatomy, Clinical and Operative Surgery, and one optional subject;

And in such supplementary subjects as have not, in an adequate manner, been included in the examination for the registrable surgical qualification possessed by such Candidate, and which are required in the examination for Licentiates of this College.

<sup>\* (</sup>Note.—The registrable Surgical Qualifications at present recognised by the College are those of the Royal College of Surgeons of England, the Royal College of Surgeons of Ireland, the Faculty of Physicians and Surgeons of Glasgow, and the Surgical Degrees of the Universities of Great Britain and Ireland.)

The optional subjects shall embrace—

- "a. Surgery in any one of its special branches—Ophthalmic, Aural and Laryngeal, Cerebro-Spinal, Abdominal, Gynæcological, Orthopædic, Venereal and Genito-Urinary, Dental;
  - "b. Advanced Anatomy;
  - "c. Advanced Physiology;
  - "d. Surgical Pathology and Morbid Anatomy;
  - "e. Midwifery;
  - "f. Medical Jurisprudence and Public Health."

The Examinations on these optional subjects shall when possible be Clinical or Practical as well as Written and Oral.

In addition to the Written, Oral, and Clinical Examinations the Candidate shall be examined on the use of surgical apparatus, and may be required to perform operations on the dead body.

He shall give notice of his intention to present himself at least three weeks before the examination, and at the same time intimate the optional subject selected, so that his Petition may be laid before the President's Council.

- 2. It shall notwithstanding be in the power of the President's Council, in the case of Candidates who shall be Registered Practitioners of not less than twenty years' standing, and who have distinguished themselves in their profession, to consider their claims, and if these and the registrable surgical qualifications they possess seem of a sufficiently high order, to recommend such Candidates to the College for ballot without Examination, the reasons justifying their exemption from examination having been stated at a previous meeting of the College.
- 3. It shall also be in the power of the President's Council to admit to the examination for the Fellowship a Candidate who has for one year subsequent to the date of his having obtained a qualification in Surgery, recognised by the College, been engaged in the study or practice of his profession, in the event of such Candidate producing evidence satisfactory to the President's Council that he is about to enter on the practice of his profession in a British Colony or in a

Foreign country, but the Diploma of Fellow of the College shall not be conferred on such person until two years have elapsed since he obtained his qualification in Surgery, nor

until he is twenty-five years of age.

4. Every Candidate for the Fellowship (with the exception of those entitled to enter under the old Constitution of the College, and having right to its Widows' Fund) shall lodge with Mr James Robertson, 1 George Square, Edinburgh, Clerk to the College, a Petition for Examination with a view to admission, and shall be recommended by two Fellows as proposer and seconder, of whom one at least shall be resident in Edinburgh; but in the case of a Candidate not being personally acquainted with two Fellows, one of whom must be resident, to act as proposer and seconder, he shall then make direct application, through the Secretary, to the President's Council for permission to come up for Examination, giving full particulars and references as to his position, status and qualifications, and should he thus satisfy the President's Council he may then come up for Examination as "recommended by the President's Council." Forms of Petition will be supplied on application to Mr Robertson.

5. Candidates for the Fellowship (not embraced under the exception to Law 4) shall pay £45 to the College Funds,\* but in the case of those who hold the Diploma of Licentiate of the College £15 thereof shall be remitted in consideration of the fees they have already paid for their Diploma. money shall be payable to Mr James Robertson immediately upon the presentation of the Petition. The fee paid by any Candidate not admitted shall be returned to him; but in the case of Candidates by examination not being successful, £10 shall be retained as examination expenses. Candidates who are unsuccessful can in no case be re-admitted to examination before the next quarterly period of the Examinations for the Fellowship.

(Note. - Candidates must understand that, until the procedure specified in Laws 6, 7, and 8 hereof has taken place and their election has been declared, they are not authorised to use the title of Fellow.)

No stamp-duty is payable on the Diploma.

- 6. The billets calling the meetings at which the Petition is to be laid before the College, shall intimate the name and surgical qualification of the Candidate, his professional appointments, if any, and the names of his proposer and seconder, or if recommended by the President's Council, and whether such Petition is presented after or without examination.
- 7. The Petition shall be considered at a subsequent meeting, to be held not earlier than four weeks after the first; and, in the meantime, the Petition, with the names of the proposer and seconder, or if recommended by the President's Council, shall have been hung up in the Library; and the billets calling the second meeting shall contain an intimation in the same form as those of the first.
- 8. At the meeting for finally considering the Petition of the Candidate, except in the case of those eligible for the Widows' Fund, the result shall be ascertained by ballot. Three-fourths of the votes are required to entitle the Candidate to be admitted; and the number of those voting shall not be less than twenty.
- 9. The Candidate shall be informed of the result of the ballot; but, before taking his seat as a Fellow, he shall make a declaration to the following effect, and shall subscribe the same in the Sederunt-Book:—"I hereby promise faithfully to "maintain and defend all the rights, liberties, and privileges of the Royal College of Surgeons of Edinburgh, and to promote the interests thereof to the utmost of my power. I "also promise faithfully to obey all the laws of the said "Royal College, made and to be made."
- 10. Candidates who do not find it convenient to repair to Edinburgh may be permitted to be enrolled as Fellows in absence, if they transmit letters of obligation to conform to No. 9 before taking their seats.
- 11. Every Fellow, on his admission, shall receive a Diploma with the Seal of the College appended; and, as regards Fellows admitted after examination, the Diploma shall bear that such has been the case.

- 12. Every Fellow is entitled to attend the meetings of the College, and to take part in the proceedings and in the election of Office-bearers.
- 13. No Fellow of the College shall keep an open shop for the sale of drugs or other merchandise.
- 14. No Fellow of the College shall allow his name to be connected with advertisements or publications of an indelicate or immoral nature.
- 15. No Fellow of the College shall practise, or profess to practise, by the use of or according to any secret remedy or method of treatment; or shall allow his name to be connected with advertisements for the sale of any secret remedy, or for practice by the use of any secret remedy or method of treatment; or shall connect himself in partnership or otherwise, or continue in connection, with any person practising by means of or advertising the sale of any secret remedy.
- 16. No Fellow shall be guilty of any deception or other immorality in the practice of his profession, or shall in any other way conduct himself inconsistently with the honour and decorum which become his position as a Fellow of the College.
- 17. It shall be in the power of the College (at a meeting specially called for the purpose, and after such notice to the Fellow concerned of the day, hour, and place of meeting as the College may fix, in order that he may, if so advised, be heard in his own defence) to take into consideration the facts and circumstances of any alleged case of transgression of the Laws and, if necessary, to hold adjourned meetings thereanent; and on being satisfied of the guilt of such Fellow, the College may, with the consent of not less than three-fourths of the Fellows present, pass such censure, or sentence of suspension, against such Fellow, as they may see fit; or recall his Diploma and declare the same to be void; and on such recall he shall cease to be a Fellow of the said College.

The following will be the Dates of the Examinations for the year from July 1896 to July 1897:—

PROFESSIONAL EXAMINATIONS FOR FELLOWSHIP.

Monday, October 12, 1896.

- " January 11, 1897.
- " April 26, 1897.
- ,, July 5, 1897.

N.B.—One day is required for the Written Examination. The Clinical and Oral Examinations will be held on a subsequent day, and it may be necessary to continue them for a second or third day. The dates of the subsequent periods are not yet fixed.

### Licence.

The Royal College of Surgeons of Edinburgh admits to the Examination for its Single Licence any Candidate who already holds a Diploma in Medicine of any British, Indian, or Colonial University, or of any British or Colonial College of Physicians whose Preliminary Examination and course of professional study is proved to be sufficient to fulfil the requirements contained in the following pages, 89-96, of Regulations, or to those who have passed a full Examination for any of the above.

Female Practitioners are now admitted to the Licence of the College, but not to the Fellowship, and throughout these Regulations for the Licence the masculine pronoun is to be read as standing for Candi-

dates irrespective of sex.

### PROFESSIONAL EDUCATION.

1. Candidates must have been engaged, during 45 months, in Professional Study, subsequent to the dates of registration as Medical Students, which period shall include not less than Four Winter Sessions', or Three Winter and Two Summer Sessions', attendance at a recognised Medical School.\*

2. Candidates must have attended the following separate and distinct Courses of Lectures at such Schools and under such Teachers as are recognised.

	Duration—at least
ANATOMY,	CourseSix months.
PRACTICAL ANATOMY,	Twelve months.
CHEMISTRY,	1 CourseSix months.
PRACTICAL or ANALYTICAL CHEMISTRY,	1 DoThree months.
MATERIA MEDICA,	1 DoThree months.
Physiology,	1 DoSix months.

<sup>\*</sup> The General Medical Council have resolved that Students commencing study after 1st January 1892 shall be required to have a curriculum of five years.

PRACTICE OF MEDICINE,
PRINCIPLES AND PRACTICE OF SURGERY,1 CourseSix months.  CLINICAL SURGERY,
MIDWIFERY AND THE DISEASES OF WOMEN 1 CourseThree months.
MEDICAL JURISPRUDENCE,

The six months' courses delivered in *Scotland* must consist of not fewer than 100 Lectures, with the exception of Clinical Medicine and Clinical Surgery. The three months' Courses must consist of not fewer than 50 Lectures.

- 3. Besides the above-mentioned Courses of Lectures, the Candidate must produce the following Certificates:—
- (a) Of having attended not less than six cases of Labour under the superintendence of the Practitioner who signs the Certificate, who must be a Registered Medical Practitioner.
- (b) Of having attended, for three months, instruction in Practical Pharmacy; the Certificate to be signed by the Teacher, who must be a member of the Pharmaceutical Society of Great Britain, or a Chemist and Druggist recognised by either College on special application, or the Superintendent of the Laboratory of a public Hospital or Dispensary, or a Registered Medical Practitioner who dispenses medicines to his patients.
- (c) Of having attended, for twenty-four months, the Medical and Surgical practice of a public General Hospital containing on an average at least eighty patients, and possessing distinct staffs of Physicians and Surgeons.
- (d) Of having attended for six months (or three months, with three months' Hospital Clerkship) the practice of a

<sup>\*</sup> Two Courses of Clinical Medicine of three months each, if not simultaneous, will be held equivalent to one Course of six months. They must be attended during the period of attendance at the Hospital where they are delivered. The same rules apply to Clinical Surgery.

<sup>+</sup> A Certificate of attendance for the same period on the Post Mortem Examinations at a General Hospital will be accepted in lieu of this Course.

Public Dispensary specially recognised by the College; or of having been engaged for six months as visiting Assistant to a Registered Practitioner.

(e) Of having been instructed in Vaccination during a period of not less than six weeks; the Certificate to be signed by

the Teacher, who must be a Registered Practitioner.\*

Candidates are strongly recommended, when circumstances afford opportunities, to take a course of Operative Surgery.

4. Graduates and Licentiates of Medicine of any recognised University or College will be admitted to examination on producing their Diplomas or Certificates of Registration as Medical Practitioners, together with such Certificates as the Inspector may require to verify the particulars inserted in the Schedule of course of study.

### PRELIMINARY EXAMINATION IN GENERAL EDUCATION.

All Candidates for the Diploma of the College must, at the commencement of their Professional Studies, have passed the complete Examination in General Education required by the General Medical Council for Registration.

### PROFESSIONAL EXAMINATION FOR THE DIPLOMA OF THE COLLEGE.

- 1. Candidates for the Diploma of the College shall be subjected to one Professional Examination, partly in writing and partly practically and orally.
- 2. Opportunities for the Examinations will be presented four times in each year. On each of these occasions the Candidates shall assemble to write answers to the questions

<sup>\*</sup> By a regulation of the Privy Council, of date 1st December 1859, no one can be appointed as a contractor for Vaccination under the English Poor-Law, who does not produce a certificate of proficiency in Vaccination from a person authorised by the Privy Council to grant the same.

proposed, and the clinical and oral examinations shall be conducted on the days immediately succeeding.

3. Unsuccessful Candidates shall be remitted to their studies for a period to be determined by the judgment of the Examiners, but not in any case for less than three months.

#### EXAMINATION.

- 4. The Examination shall embrace the Principles and Practice of Surgery (including Operative Surgery and Surgical Pathology), Clinical Surgery, and Surgical Anatomy, and shall not take place before the termination of the full period of Study.
- 5. Applications for Examination must be made to Mr James Robertson, Solicitor, 1 George Square, Edinburgh, Clerk to the College, not later than one week prior to the date of Examination.\*
- 6. Every Candidate must produce to Mr Robertson—1st, Satisfactory evidence of his having attained the age of twenty-one years; 2d, Certificates of having attended the Classes enumerated at pages 89-90, and the other certificates enumerated at pages 90-91, when required; 3d, A tabular statement, carefully filled up on the printed form which is issued by the College, exhibiting the whole of his professional education, and distinguishing the Classes, Hospitals, Dispensaries, and Schools attended during each session of his studies. This statement, accurately filled up and attested by his signature, will be preserved by the College as a record; and 4th, The Diploma in Medicine, certificate of registration as a Medical Practitioner, or satisfactory evidence of having passed a full Examination for the Diploma in Medicine.

<sup>\*</sup> Candidates at a distance are requested to send their Certificates much earlier, so as to give sufficient time for the exchange of one or two explanatory letters, as much disappointment has been occasioned by the discovery of defects in the Course of Study when it was too late to rectify them by the production of documents.

7. On the production of these documents, Mr Robertson will give the Candidate an order authorising the Examiners to admit him to examination.

8. The fee of £15, 15s. payable to the College must be lodged in the hands of Mr Robertson not later than one week preceding the examination-day. The sum of £10, 10s. will be returned to each unsuccessful Candidate.

9. Candidates whose previous Examinations may be considered by the President's Council to have been insufficient in any of the other subjects contained in the Curriculum of Study (pp. 89-91) may be required to pass an additional Examination in such subjects before being admitted to the Examination on the subjects detailed in sec. 4; but none of the subjects of examination (sec. 4) will be omitted, even if some of them should have formed part of examination by another Board.

10. Candidates desirous of Special Examinations, on other days than those fixed by the Regulations, must prepare a case to be submitted to the consideration of the authorities of the College, with evidence to shew why it was and is impossible for them to avail themselves of the ordinary examination, past or future. They must, at the same time, fill up and lodge the requisite Schedule and produce satisfactory evidence of the whole of the prescribed Course of Study, of having passed the Preliminary Examination, and fulfilled conditions of Special Notice on page 89; they must state the earliest and the latest days within which they can present themselves.\* It is very desirable that all such Candidates, and especially those who are at a distance from Edinburgh, should present their applications as long beforehand as possible. The fee for a Special Examination, which must be lodged not later than two days preceding the examination-day, is as follows, viz.: -£20 for Examination; of which £10 will be returned to Candidates remitted on Examination.

11. In order to test more effectually the practical knowledge of Candidates, recent dissections and anatomical speci-

<sup>\*</sup> Attention is requested to the points in italics.

mens will be employed during examination. They will also be subjected to a practical clinical examination in the Surgical Hospital, including the application of surgical apparatus, bandages, surface markings, etc.; and may, if it be considered necessary to test their knowledge, be required to perform operations on the dead body.

12. No candidate shall be admissible to examination who has been rejected in the subjects of this Examination by any other Licensing Board within the three months preceding his application to be examined.

13. The sums stated in the various sections of this and the preceding Chapter include all fees, of every kind, and the Officer is prohibited from receiving any.

14. By the Bye-laws of the College it is provided that if the name of any Licentiate holding the Surgical Diploma of the College has been erased from the Medical Register by virtue of the provisions of the Medical Act 1858, section XXIX., it shall be in the power of the College, at a meeting specially summoned for the purpose, and with the concurrence of not less than three-fourths of the Fellows present, to recall the Diploma of such Licentiate, and declare the same to be void, and any one upon whom such recall has been served shall cease to be a Licentiate.

### DATES OF EXAMINATIONS.

The dates shall be the same as those of the Fellowship, page 88.

### DECLARATION BY LICENTIATES ON ADMISSION.

Every Candidate on passing the Examination shall enter his name in the Register of Licentiates of the College, and ipso facto subscribe the following Declaration, and bind and oblige himself to conform to its requirements:—

"I do hereby solemnly and sincerely declare that I will maintain and defend all the rights and privileges of the Royal College

of Surgeons of Edinburgh, that I will not advertise or employ any unbecoming method of obtaining practice, or associate myself with any person who does so, that I will not publish any matter prejudicial to the interests of the College or derogatory to the honour of my profession. I also undertake to observe all the laws of the said Royal College, made and to be made, under the penalty of the forfeiture of my Diploma, and all rights I can legally demand as a Licentiate."

### REGULATIONS TO BE OBSERVED BY LECTURERS IN EDINBURGH.

1. Every Lecturer at this School of Medicine shall ascertain, at least twenty-five times in a six months' course, and twelve times in a three months' course, the actual attendance

given by his pupils.

2. He shall do this by calling the name of each pupil at least once a-week, and enter in a regular roll-book the presence or absence of each individual; the Students of course, being kept in ignorance of the particular days on which this is to be done, excepting on the occasion of the first roll-call, which shall not be later than the fifteenth day of the Session.

- 3. The said roll-book shall be kept according to a form prescribed by the College; shall also be carefully preserved; and shall be at all times accessible to the Secretary of the College; on whom it shall be incumbent to examine the roll-book of each class at least once during every Session, before the termination of the Winter and Summer Sessions respectively.
- 4. On granting certificates of attendance on their classes the Lecturers shall use the annexed Form, filling up the blanks with words at length, and on no account employing figures:—

" Edinburgh,

"I hereby certify that Course of Lectures and terminating attended my commencing on

that the roll of the class was called the Session; and that of these occasions."

times during was present on

### Signed .....

- 5. When a Student's certificate of attendance bears that he has been more than five times absent in a six months' course, or more than thrice in a three months' course, when the roll of his class was called, the Inspector shall intimate this at the foot of that Student's letter to the Examiners, specifying the branch or branches on which the attendance was defective, in order that he may be particularly examined upon them. But if, on the other hand, a Student's certificate of attendance bears that he has been more than eight times absent in a six months' course, or more than four times in a three months' course, he shall not be admitted to examination until he has attended another course of lectures on every such department of study.
- 6. When a Student's absence has been occasioned by sickness, or any other unavoidable cause, such cause shall be stated in the certificate of attendance granted by the Lecturer, and the President and Council of the College shall decide whether the Student shall or shall not be required to attend another course of such lectures before presenting himself for examination.
- 7. The above Regulations shall be imperative on every Lecturer at this School of Medicine whose Lectures are recognised by the College; and it is hereby notified that, in the event of its being ascertained that any Lecturer evades the faithful enforcement thereof, the College will not hesitate to withdraw its recognition of his Course of Lectures.

### Licence in Dental Surgery.

### CHAPTER I.

- 1. All Students who intend to become Candidates for the Licence in Dental Surgery of the College shall have their names inscribed in the Register of Dental Students instituted by the General Medical Council, and they must be careful in not neglecting this requirement. Such Candidates must pass the complete Examination in the following subjects:—
  - (1) English Language, including Grammar and Composition;
  - (2) Latin, including Grammar, Translation from specified authors, and Translation of easy passages not taken from such authors;
  - (3) Mathematics, comprising (a) Arithmetic; (b) Algebra, as far as Simple Equations inclusive; (c) Geometry, the subjectmatter of Euclid, Books I., II., and III., with easy deductions.
  - (4) ONE OF THE FOLLOWING OPTIONAL SUBJECTS:—(a) Greek;
    (b) French; (c) German; (d) Italian; (e) any other Modern Language; (f) Logic.

The above subjects must be passed at one time, except in the case of examinations passed for Graduation in Arts of any of the Universities recognised, or a Senior or Higher Local University Examination, or a Senior Grade Examination of the Intermediate Education Board of Ireland, or the Leaving Certificate Examination (Honours and Higher Grade) of the Scottish Education Department wherein the specified subjects of General Education are included, or in the case of Students who, prior to 1st January 1892, had passed in part of a recognised Preliminary Examination.

Note.—Copies of the Regulations of the Preliminary Examination conducted by the Educational Institute of Scotland on behalf of the College can be obtained on application to Thomas Morrison, Esq., LL.D., Free Church Training College, Glasgow, Secretary, or Alexander Mackay, Esq., LL.D., 40 Princes Street, Edinburgh, Treasurer of the Institute.

2. The Preliminary Examination may be passed before any of the other Boards enumerated in Appendix III., pp. 45–49, and the subjects embraced in the Examination should be specified on the Certificate.

3. Registration is effected only with the Registrar of the General Medical Council,—William John Clarke Miller, Esq., B.A., 299 Oxford Street, London, W.,—and when once effected it does not require to be repeated in any succeeding year.

4. Students who commenced their professional education before 22d July 1878 by apprenticeship to Dentists entitled to be registered, or by attendance upon professional lectures, shall not be required to produce evidence of having passed a Preliminary Examination.

### CHAPTER II.

### PROFESSIONAL EDUCATION.

1. Candidates shall produce Certificates of having been engaged in the required Professional Studies during four years subsequent to the date of registration, which period shall include not less than four Winter Sessions' attendance at one or more recognised Medical Schools, and of having received three years' instruction in Mechanical Dentistry from a registered Dental Practitioner, either as a bonâ fide Apprentice or as a Pupil, or in the Mechanical Department of a recognised Dental Hospital where the arrangements are satisfactory to the College,\*

<sup>\*</sup> The three years of instruction in Mechanical Dentistry, or any part of them, may be taken by the Student either before or after his registration as a Student. Where twelve months during a bonâ fide Apprenticeship of three or more years with a registered Dental Practitioner

except in the case of previously registered Medical Practitioners, when two years will be considered sufficient.

2. Candidates who have commenced their Studies after 1st October 1890 must have attended the following curriculum \*:—

							Duration—at least	
ANATOMY, .				1 Course,			Six Months.	
PRACTICAL ANA	TOMY AN	D D	EMON	STRATIONS,			Twelve Months.	
CHEMISTRY,† .				1 Course,			Six Months.	
PRACTICAL CHE							Three Months.	
Physiology, .							Six Months.	
MATERIA MEDI	CA, .			1 Do.,			Three Months.	
SURGERY, .				1 Course,			Six Months.	
MEDICINE, .				1 Do.,			Six Months.	
ATTENDANCE, WITH CLINICAL INSTRUCTION, AT A Not less than RECOGNISED GENERAL HOSPITAL, Twelve Months.;								

These courses must have been attended at a University, or in an Established School of Medicine, or in a Provincial School specially recognised by the College as qualifying for the Diploma in Surgery, except in the case of Chemistry and Practical Chemistry studied previous to Registration, which may be taken at any recognised Teaching Institution.

In addition to these subjects, Candidates shall require to have attended the following Special Courses of Lec-

have been served after registration as a Dental Student, they may be counted as one of the four years of Professional Study.

<sup>\*</sup> Professional Study taken prior to Registration as a Dental Student is not recognised except in Mechanical Dentistry, and where Chemistry has been taken in accordance with the Regulations for Medical Students with a five years' course of study.

<sup>†</sup> Chemistry will be held as embodying Metallurgy. See Appendix.

<sup>‡</sup> Candidates who have commenced study in accordance with the Regulations in force before July 1895 shall not be required to produce certificates for more than six months' attendance at a General Hospital.

tures given by teachers who have been recognised by the College as qualifying for the Diploma in Dental Surgery:—

Dental Anatomy and Physiology, (Human and Comparative), Not less than 24 Lectures.

Dental Surgery and Pathology, Not less than 20 Lectures.

Dental Mechanics, . . . Not less than 12 Lectures.

Two Years' Attendance at a Dental Hospital, or the Dental Department of a General Hospital, recognised by the College.

Certificates of Attendance on the courses prescribed in sect. 2 hereof shall entitle Candidates to appear either for the Dental Examinations, or for the corresponding subjects of the Examinations for the Triple Qualification, as they may select, or for both.

Candidates who have passed the necessary examination or examinations in the subjects of Anatomy, Physiology, and Chemistry for the Triple Qualification shall be exempt from the First Dental Examination, and shall have the advantage of being admissible to the Final Dental Examination as well as to the Examinations for the Triple Qualification. But the First Dental Examination shall not be held as equivalent to the Triple Examinations, and shall admit to the Final Dental Examination only.

Candidates who are Licentiates of this College, or who may be registered Medical Practitioners, shall require to produce Certificates of Attendance on the Special Courses of Lectures and Instructions only, and shall be examined in these departments only for the Dental Diploma. And Candidates who shall produce satisfactory evidence of having passed in any of the subjects of the First Dental Examination before any Dental or Surgical licensing Board recognised by the Royal College of Surgeons of Edinburgh, shall be exempt from examination in such

subject or subjects; but no examination shall be recognised as giving exemption unless it is co-extensive in its scope with the examination of this College, and is the only or the Final Examination on the subject or subjects required by the Board at which it was passed.

Dental Licentiates must have obtained the Licence in Surgery of this College, or the Surgical Qualifications of the Royal Colleges of Surgeons of England or Ireland, or of the Faculty of Physicians and Surgeons of Glasgow, or the Degree in Surgery of any of the Universities of Great Britain and Ireland, to be eligible as Candidates for the Fellowship of this College should this be desired.

### CHAPTER III.

### EXAMINATIONS.

- 1. Candidates shall be subjected to two Professional Examinations, herein called the First and Second Examinations, to be conducted at separate times, partly in Writing, and partly Orally, with a Practical Section in the Second Examination, and conducted in the same manner as the ordinary Surgical Examinations.
- 2. The First Examination shall embrace the subjects of Anatomy, Chemistry, and Physiology.\* Candidates who desire to pass this Examination must apply to James Robertson, Esq., Solicitor, 1 George Square, Edinburgh, Clerk to the College, not later than one week preceding the day of Examination (see Appendix, p. 107), and must then produce all the required Certificates of having passed the Preliminary Examination, having been registered as

<sup>\*</sup> See Appendix.

Dental Students, and of having attended the prescribed courses on Anatomy, Chemistry, and Physiology. Each Candidate shall pay to Mr Robertson the sum of £4, 4s. not later than one week preceding the Examination, after which no entries can be received. In the event of a Candidate being unsuccessful £2, 2s. shall be returned to him, and where the Candidate is successful the fee of £4, 4s. paid by him shall be held as paid to account of the total fee of £10, 10s. payable for the Diploma. The fee payable by Candidates who commence their studies after 1st October 1896 shall be £15, 15s., £5, 5s. of which shall be payable for the First Examination and £10, 10s. for the Second Examination.

3. The Second Examination shall embrace the subjects of Surgery, Medicine, and Therapeutics,\* and the Special Subjects of Dental Anatomy and Physiology, Dental Surgery and Pathology, and Dental Mechanics, with a Practical as well as the Written and Oral Examinations in the subjects of Dental and Oral Surgery, Pathology, and Mechanics. The Practical Examination shall be conducted so as to test as far as possible the practical knowledge of the Candidate, who will be examined on the Treatment of Dental Diseases, Tooth Filling, and the administration of Anæsthetics; the Treatment of Dental Irregularities; and the Principles and Practice of Mechanical Dentistry. Candidates are required to provide their own instruments. Candidates must apply to Mr Robertson not later than one week previous to the day of Examination (see page 107), and must then produce to him, -1st, Certificate of having attained the age of twenty-one years; 2d, A

<sup>\*</sup> See Appendix.

Certificate of Registration as a Dental Student in the Register of the General Medical Council (see Chap. I.); 3d, The Certificates of having attended during a period of four years the Lectures and other prescribed courses of instruction; and shall lodge the requisite schedule of courses of study. Each Candidate on entering for this Examination shall pay to Mr Robertson the sum of £6, 6s., and in the event of his being unsuccessful £3, 3s. shall be returned to him.

4. No Candidate shall, if unsuccessful, be remitted for a shorter period than three months. These Rules shall apply to any subsequent rejection.

5. No Candidate shall be admitted to Examination who has been rejected by any other Licensing Board within the three preceding months.

- 6. In the marks obtained for each subject, 100 will indicate a complete answer. At the First Examination the marks in the Written portion must be at least 40 per cent on each subject to admit to the Oral Examination; and at the Oral portion of the Examination, no Candidate shall be allowed to pass unless he has obtained 50 per cent in each subject, irrespective of the marks at the Written.
- 7. At the Second Examination the marks must be 40 per cent in each subject in the Written portion in order to admit to the Practical Examination; at the Practical Examination 50 per cent must be obtained to admit to the subsequent Oral Examination; and at the Oral Examination no Candidate will be allowed to pass who has not obtained 50 per cent in each subject, irrespective of the marks in the Written and Practical Examinations.
- 8. Should a rejected Candidate obtain in the Oral Examinations on any subject not less than 65 per cent,

and have gained not less than 55 per cent in the same subject at the Written Examination, he shall obtain an absolute pass on that subject, and the Examiners shall record the same in the Register provided for that purpose. But such Candidate must at the same time have made not less than 40 per cent in the Oral of the other subjects for which he is rejected.

9. Candidates who claim exemption from the First Dental Examination in terms of Chapter II. (pages 100 and 101) shall, before being admitted to the Second Dental Examination, be required to pay the total fee of £10, 10s., payable for the Dental Diploma, of which £3, 3s. shall be returned in case of rejection.

### CHAPTER IV.

### TITLE AND DIPLOMA.

Those Candidates who pass this Examination shall be entitled to the designation of Licentiate in Dental Surgery of the Royal College of Surgeons of Edinburgh, and shall obtain the Dental Diploma of the Royal College. Each Candidate before receiving his Diploma shall, in entering his name in the books of the College, ipso facto sign the following declaration:—

I hereby promise faithfully to maintain and defend all the rights and privileges of the Royal College of Surgeons of Edinburgh, and to promote its interests to the utmost of my power. I promise, in the event of my admission as a Dental Licentiate of this College, to refrain from advertising or employing any other unbecoming modes of attracting business, and I shall not allow my name to appear in connection with any one who does so. I also promise to obey all the laws of the said Royal College, made or to be made.

The Diploma is registrable in the Dentists' Register

under the Act 41 and 42 Vict. c. 33 (1878); and those who also hold registrable Medical and Surgical qualifications may have them added as additional qualifications. Registration is effected with the Registrar of the General Medical Council—William John Clarke Miller, Esq., B.A., 299 Oxford Street, London, W.

The attention of all Dental Licentiates is drawn to the Recommendation of Crown Counsel, that in the administration of anaesthetics due care should be taken to ascertain the condition of the patient, and that when the Practitioner does not himself possess a medical qualification, he should in such cases obtain, where practicable, the presence or assistance of a qualified Medical Practitioner.

Note.—Throughout these Regulations the masculine shall include the feminine gender.

# APPENDIX.

In addition to a special acquaintance with DENTAL and ORAL Anatomy, Pathology, and Surgery, Candidates will be required to possess a competent knowledge of, at least, the following GENERAL subjects of Examination:—

#### ANATOMY AND PHYSIOLOGY.

- 1. The Skeleton in general; the anatomical characters and articulations of the Bones; with the Muscles of Mastication and Deglutition, and of the Upper and Lower Extremities.
- 2. Names and situations of the principal Bloodvessels and Nerves, and Elementary Anatomy and Physiology of the Viscera of the Chest and Abdomen, and of the Brain and Cranial Nerves.
- 3. General knowledge of the functions of Digestion, Circulation, Respiration, and the Nervous system.
  - 4. An elementary knowledge of General Histological Structures.

#### CHEMISTRY.

- 1. The Laws of Combination.
- 2. Sources, preparation and chemical properties of Oxygen Hydrogen, Nitrogen, Carbon, Sulphur, and Chlorine.
- 3. A general acquaintance with the Chemistry and Properties of Potass, Soda, Ammonia, Iron, Lead, Gold, Silver, Platinum, Copper, Zinc, Arsenic, and Mercury.
- 4. A general acquaintance with the following organic compounds: Chloroform, Ether, Alcohols and Soaps, with an elementary knowledge of the more common alkaloids and organic acids.

# MEDICINE, SURGERY, AND THERAPEUTICS.

1. The general nature and treatment of Inflammation, Hæmorrhage, Fever, Asphyxia, Syncope, Wounds, Dislocations, and Fractures; along with an Elementary knowledge of the pathology and treatment of the more common Affections occurring in the practice of Medicine and Surgery.

- 2. A knowledge of Narcotics, Emetics, Purgatives, Depressants, and Stimulants, with examples of the commoner substances used as each, and the general modes of prescription.
  - 3. Anæsthetics: local and general.

The following will be the Periods of Professional Examinations for the Year 1897:—

I. FIRST PROFESSIONAL EXAMINATIONS.

Tuesday, 27th April 1897. Monday, 26th July 1897.

#### II. SECOND PROFESSIONAL EXAMINATIONS.

These will take place after the conclusion of the First Professional Examinations, at each of the above-mentioned periods. They will generally commence on the Thursday succeeding the day of the First Examination, and in no case on an earlier day, but it may be found necessary to postpone them.

# ROYAL COLLEGE OF PHYSICIANS OF EDINBURGH.

INCORPORATED IN 1681.

# Regulations for the Licence.

- 1. The College will grant its Single Qualification in Medicine to Candidates who already possess a recognised British, Irish, Indian, or Colonial Qualification in Surgery.
- 2. Candidates will be required to pass a written and oral Examination before the Examining Board of the College in Medicine, Clinical Medicine, Materia Medica, Midwifery, and Medical Jurisprudence.
- 3. The Examinations will be held on the first Wednesday, and succeeding days of every month, except September and October.
- 4. No one is admissible to Examination who has within the previous three months been rejected by any Licensing Board, and every Candidate is required to sign and send in along with his Certificates a declaration, stating that he has not been rejected within that period.
- 5. The Fee for the Licence is Fifteen Guineas. In the event of a Candidate being unsuccessful, the sum of Six Guineas will be retained; and this Regulation will also apply to cases in which the Candidate may have been previously rejected on one or more occasions.
- 6. Candidates may be admitted to Special Examination, on days other than those appointed above, on bringing forward reasons satisfactory to the Council, and on paying an Extra Fee of Five Guineas. Should the Candidate be unsuccessful, the sum of Eleven Guineas will be returned to him.
- 7. All Candidates for Examination are required to communicate with the Secretary to the College, not less than eight days before

the date of the Examination at which they propose to appear, and the fees must be lodged with the Secretary, R. W. Philip, M.D., 4 Melville Crescent, at least four days before the date of the examination.

N.B.—Under the provisions of the Medical Act of 1886, the Licence of the Royal College of Physicians, being a Single Qualification, does not confer the right to Registration upon those who hold it, but it may be registered as an Additional Qualification by those who are already on the Register.

# Regulations regarding the Fellowship and Membership of the College.

#### I. OF THE FELLOWSHIP.

- 1. No one shall be elected a Fellow of the College until he has been at least one year a Member thereof, and has attained the age of twenty-five years.
- 2. Every motion for the election of a Fellow shall be made at a quarterly meeting of Fellows by one of the Fellows present, and seconded by another; and this motion shall be determined by ballot at the next quarterly meeting of Fellows,—a majority of three-fourths being necessary to carry it in the affirmative.
- 3. If an urgent reason satisfactory to the Council be assigned, a Candidate may be proposed at an extraordinary meeting of the Fellows summoned for the purpose, and his petition may be balloted for at an extraordinary meeting of the Fellows specially summoned for the purpose; provided that the holding of this special meeting be agreed to by a majority of five-sixths of the Fellows present at the meeting at which the Candidate was proposed; provided also that not less than one week intervene between the two meetings, and that due notice of the intended ballot be given in the billets summoning the second meeting. The Candidate shall in this case pay to the Treasurer a sum of Ten Guineas in addition to the ordinary Fees.
- 4. Every Fellow resident within five miles from the General Post-Office of Edinburgh shall, on his election, have his name

placed on the Roll of Attendance, and shall pay the annual contribution, and be subject to all the laws of the College regarding Fines. Fellows resident beyond five miles shall have the option of having their names on the Roll of Attendance or not; but if their names be on the Roll of Attendance, they shall pay the Annual Contribution and be subject to Fines.

#### II. OF THE MEMBERSHIP.

- 1. Any Licentiate of a College of Physicians, or Graduate in Medicine of a British or Irish University, with whose knowledge of Medical and General Science the College may be satisfied, may be admitted a Member of the College, provided he shall have attained the age of twenty-four years.
- 2. Every motion for the election of a Member shall be made at a quarterly meeting of Fellows by one of the Fellows present, and seconded by another; and this motion shall be determined by ballot at the next quarterly meeting,—a majority of three-fourths being necessary to carry it in the affirmative.
- 3. Every Candidate for the Membership (except such as shall be admissible under the provisions of Section 6) shall be required to pass an Examination—
  - (1) On the Principles and Practice of Medicine, including Therapeutics.
  - (2) On one of the following subjects to be selected by the Candidate, in which a high standard of proficiency will be expected:—(a) One or more departments of Medicine specially professed; (b) Physiological Medicine; (c) General Pathology and Morbid Anatomy; (d) Medical Jurisprudence; (e) Public Health; (f) Midwifery; (g) Diseases of Women.
- 4. Application for the Membership shall be made through the Secretary, who shall transmit to the Candidate a copy of the Regulations and Plan of Examination, together with a Form of Petition.
- 5. The Candidate shall return the petition duly filled up to the Secretary, and shall at the same time transmit Testimonials of recent date from well-known members of the profession, certifying as to his professional and social standing. These documents shall

be submitted to the Council, who shall also employ such other methods of scrutiny as they may deem necessary. If satisfied as to the eligibility of the Candidate, the Council shall authorise his examination by the Board of Examiners, who shall report the result of the examination to the Council. If the report of the Examiners be satisfactory, the Council shall report the same to the College at the next quarterly meeting, when it shall be competent for a motion to be made for the election of such Candidate to the Membership of the College.

- 6. If any Candidate who has attained the age of forty years, and has been a Registered Practitioner for not less than ten years, shall produce testimonials shewing that he has been distinguished for his scientific attainments, or eminence as a Medical Practitioner, the Council may, if they see fit, exempt him from the whole or any part of the prescribed Examination.
- 7. The dates of the Examinations for the year ending 31st July 1897 shall be 13th and 14th October 1896, the 12th and 13th January, the 12th and 13th April, and the 12th and 13th July 1897; but application must be made to the Secretary not less than one month previous to the date of the examination at which the Candidate proposes to appear.

#### III. OF THE FEES.

- 1. The Fee to be paid by a Member shall be Thirty Guineas.
- 2. A Licentiate who has obtained the Licence prior to the 1st August 1876, when raised to the rank of Member, shall pay Twenty Guineas; a Licentiate obtaining the Licence subsequent to that date shall, when raised to the rank of Member, pay Fifteen Guineas.
- 3. When a Member shall be raised to the rank of Fellow he shall pay Thirty Guineas, exclusive of Stamp-duty.\*
- 4. All Candidates for Fellowship or Membership must lodge their Fees, and the amount of Stamp-Duty payable at the time to Government, with the Treasurer, previously to presenting their petitions.

The Stamp-duty on the Fellowship payable to Government is £25.

# SCHOOL OF MEDICINE of the ROYAL COLLEGES, EDINBURGH.

In accordance with the Statutes of the University of Edinburgh, one half of the qualifying Medical Classes required for Graduation may be attended in this School, in addition to the Class of Practical Materia Medica and the Classes of Clinical Medicine and Clinical Surgery. The Regulations require that the fee for any Class, taken for Graduation in Edinburgh, shall be the same as that for the corresponding Class in the University.

The whole education required for Graduation at the University of London may be taken in this School.

#### EXTRA-ACADEMICAL TEACHERS.

REGULATIONS OF THE UNIVERSITY COURT RELATIVE TO CERTIFICATES
OF ATTENDANCE GRANTED BY EXTRA-ACADEMICAL TEACHERS.

The Certificate of Attendance granted to Students by recognised Extra-Academical Teachers should, in all cases, state the number of Lectures, or of Meetings for Practical Instruction, in the Course; the number of occasions on which attendance was ascertained; and the number of those occasions on which the student was present, and in what further respects he duly performed the work of the Class. The certificate should also state the general scope of the Course; and, in particular, in the case of Chemistry, that the Course included Organic as well as Inorganic Chemistry; in the case of Midwifery, that it included the Diseases of Women and Children; and in the case of Practical Materia Medica, that it included Pharmacognosy, Pharmacy, Dispensing, and the writing of Prescriptions.

LIST OF EXTRA-ACADEMICAL LECTURERS whose Lectures qualify for Graduation in Edinburgh University.

	Date of
	Recognition
A. P. Aitken, D.Sc	Chemistry and Practical do1888
A. I. Mitkell, D.G.	Onemitted with a resolution to made
J. O. Affleck, M.D., F.R.C.P. & S.E	Practice of Physic 1879
J. O. Ameck, M.D., P.R.O.I. & B.E.	Tractice of Thysicianismitor
Byrom Bramwell, M.D., F.R.C.P.E	Departing of Dhysia 1880
Byrom Bramwell, M.D., F.R.C.F.E	Tractice of Thysic
TO THE PROPE	D. 11 -1 J D 1 1 1007
Alexander Bruce, M.D., F.R.C.P.E	Pathology and Practical do156/
Thomas and a series of a serie	
A. G. Bruce	Practical Materia Medica 1894
A. C. Dillocomonssons and a contract the contract to the contr	Transferred Transferred Transferred Library

	Date of Recognition
Francis Cadell, M.B., F.R.C.S.E.	Vaccination1896
F. M. Caird, M.B., F.R.C.S.E	Surgery
William Craig, M.D., F.R.C.S.E	Materia Medica and Prac- tical do
Francis Cadell, M.B., F.R.C.S.E	Chemistry and Practical do. 1879
John Duncan, M.D., LL.D., F.R.C.S.E	Clinical Surgery1886
William Duncan E. S. Fry, M.B., C.M George A. Gibson, M.D., D.Sc., F.R.C.P.E.	Practical Materia Medica1886
George A. Gibson, M. D. D.Sc., F.R.C.P.E.	Practice of Physic1889
David Berry Hart, M.D., F.R.C.P.E	Midwifery
F. W. N. Haultain, M.D., F.R.C.P.E	Midwifery1891
J. W. B. Hodsdon, M.D., F.R.C.S.E John Hunter, F.I.C	Chamistry and Practical do 1894
Alexander James, M.D., F.R.C.P.E	Practice of Physic1888
Alexander Johnstone	Botany
J. Falconer King, F.C.S	Chemistry and Practical do1894
R. F. C. Leith, M.B., B.Sc., F.R.C.P.E Sir H. D. Littlejohn, M.D., LL.D., F.R.C.S.E.	Medical Invienzudence before 1861
Stevenson Macadam, Ph.D	Chemistry and Practicaldo. " 1861
W. Ivison Macadam, F.R.S.E., F.I.C., F.C.S	Chemistry and Practical do1888
Stevenson Macadam, Ph.D W. Ivison Macadam, F.R.S.E., F.I.C., F.C.S A. N. M'Alpine, B.Sc George Mackay, M.D., F.R.C.S.E	Onlytholmology 1896
P. Hume Maclaren, M.D., F.R.C.S.E)	Ophthalmology
P. Hume Maclaren, M.D., F.R.C.S.E Charles W. MacGillivray, M.D., F.R.C.S.E.	Clinical Surgery1892
John Shaw M'Laren, M.B., F.R.C.S.E	Surgery1892
Alexander G. Miller, M.D., F.R.C.S.E R. Milne Murray, M.B., F.R.C.P.E	Midwifary 1886
D Noël Paten M D E P C P F	Physiologyand Practical do (1887
D. Noël Paton, M.D., F.R.C.P.E	Thysiologyandriacticardo. (1888
R. W. Philip, M.D., F.R.C.P.E	Practical Chamistry 1888
William Russell, M.D., F.R.C.P.E.	Pathology and Practical do1887
Ralph Stockman, M.D., F.R.C.P.E H. Alexis Thomson, M.D., F.R.C.S.E	Materia Medica and Prac-
H. Alexis Thomson, M.D., F.R.C.S.E	Surgery1893
J. Arthur Thomson, M.A	Natural History1886
J. Batty Tuke, M.D., F.R.C.P.E., and	Mental Diseases1896
J. Arthur Thomson, M.A.  J. Batty Tuke, M.D., F.R.C.P.E., and John Macpherson, M.D.  Robert Turnbull, B.Sc.	Botany1895
Dawson F. D. Turner, M.D., F.R.C.P.E	Physics1893
David Wallace, M.B., F.R.C.S.E	Surgery
J. R. Whitaker, B.A., M.B.Lond., F.R.C.P.Ed. Wm. Wood, M.B., C.M	Practical Materia Medica 1893
John Wyllie, M.D., F.R.C.P.E.	Practice of Physic1878

#### FEES.

For a First Course of Lectures, £3, 5s; for a First Course of Lectures qualifying for the University of Edinburgh, £4, 4s.; for a Second, £2, 4s.; Perpetual, £5, 5s. To those who have already attended a First Course in Edinburgh, the Perpetual Fee is £2, 4s. Practical Anatomy (Winter Course), £3, 3s.; Course of Demonstrations only, £2, 2s.; Perpetual, £4, 4s. Practical Anatomy, with Course of Demonstrations (Winter Session), £4, 4s.; Practical

Chemistry, £3, 3s.; Analytical Chemistry, £2 for one month, £5 for three months, or £10 for six months. Biology, £3, 3s.; Physics, £3, 3s. Practical Physiology, Practical Pathology, and Practical Materia Medica and Pharmacy, each £3, 3s.; Diseases of the Ear and Throat, Diseases of the Eye, Diseases of the Skin, Diseases of Children, and Diseases of the Tropics and Climatology, each £2, 2s.; Vaccination, £1, 1s. For Summer Courses of Clinical Surgery and Clinical Medicine, each £2, 4s.; Practical Anatomy, including Anatomical Demonstrations, Practical Medicine and Medical Diagnosis, each £2, 2s.; Operative Surgery, £3, 3s. Insanity, £2, 2s.

Table of Minimum Cost for attending the Medical Classes at the Medical School, and Fees of the Examinations for the Conjoint Diplomas of the Royal Colleges of Physicians and Surgeons of Edinburgh and the Faculty of Physicians and Surgeons of Glasgow, with the Order of Study, under the old Regulations:—

FIRST WINTER SESSION.	THIRD SUMMER SESSION.
Anatomy, - £3 5 0 Practical Anatomy, with Demon-	Pathological Anatomy, or Attend-
Practical Anatomy, with Demon-	ance on Post-Mortem Examina-
strations, 4 4 0 Chemistry, 3 5 0	tions at a General Hospital
	Vaccination, 1 1 0
£10 14 0	accepted, £3 5 0 Vaccination, 1 1 0 Hospital, • 2 2 0
FIRST SUMMER SESSION.	£6 8 0
Practical Chemistry, - £3 3 0 First Examination in Chemistry,	20 0 0
Elementary Anatomy and His-	THE PARTY OF THE P
tology, 5 5 0	FOURTH WINTER SESSION.
£8 8 0	Clinical Surgery, £2 4 0 Clinical Medicine, 2 4 0 Hospital, • 4 4 0
SPOOND WINTER SESSION	Clinical Medicine, 2 4 0
Practical Anatomy, - £3. 3 0 Physiology, 3 5 0 Surgery, 3 5 0 Hospital, 4 4 0	
Physiology, 3 5 0	£8 12 0
Surgery, 3 5 0	
	- FOURTH SUMMER SESSION.
£13 17 0	+Midwifery and Diseases of Women
SECOND SUMMER SESSION.	and Children, - £3 5 0 †Medical Jurisprudence, - 3 5 0 Practical Midwifery, - 1 1 0 Dispensary Practice, - 3 3 0 Third Examination — Principles
Materia Medica, - £3 5 0	†Medical Jurisprudence, - 3 5 0
Practical Materia Medica and	Practical Midwifery, 1 1 0
Practical Materia Medica and Pharmacy, 3 3 0 Hospital, 2 2 0 Second Examination in Anatomy, Physiology, Materia Medica, and Pharmacy, - 5 5 0	Third Examination — Principles
Second Examination in Anatomy,	and Practice of Medicine (in-
Physiology, Materia Medica, and	cluding Therapeutics, Medical
Pharmacy,	Anatomy, and Pathology); Clinical Medicine; Principles
£13 15 0	and Practice of Surgery (in-
THIRD WINTER SESSION.	cluding Surgical Anatomy and Surgical Pathology); Clinical
Practice of Medicine, - £3 5 0	Surgical Pathology); Chinear
Clinical Surgery, 3 5 0	Surgery; Midwifery and Gyne- cology; Medical Jurisprudence
Practice of Medicine, - £3 5 0 Clinical Surgery, 3 5 0 Clinical Medicine, 3 5 0 Hospital, 4 4 0	and Hygiene, 15 15 0
The state of the s	£26 9 0
£13 19 0	
[Those marked thus † may be attende	d during the Third Summer Session.]

<sup>•</sup> A perpetual ticket can be obtained on payment of £12, and separate payments amounting to £12, 12s. entitle the student to a perpetual ticket.

The minimum cost for Lectures and Examination Fees is therefore about £102 for the Conjoint Examinations under the old Regulations, and about £115, as shewn in the following table, under the new Regulations. The Fees are payable to the Teachers when the classes are entered, and the inconvenience of the system of payment in a slump sum at the beginning of study prevailing in some Schools is therefore not experienced here.

The following Order of Study is recommended as conforming generally to the sequence of Examinations under the new Regulations:—

FIRST S	UMMER	SESS	ION.			THIRD WINTER SESSION.
Physica			. 00	3	0	Surgery, £3 5 0  Hospital Practice,* 4 4 0  Clinical Surgery, 3 5 0
Physics, Elementary Biol	corre			9	0	Hospital Practice,* 4 4 0
Elementary Dioi	ogy,					Clinical Surgery, 3 5 0
			0.0	6	0	
			£.	0	U	£10 14 0
FIRST V	VINTE	SESS	ION.			FOURTH SUMMER SESSION.
						Midwifery and Gynaecology, - £3 5 0
Chemistry, -		-	- £1	5	0	Midwifery and Gynaecology, - £3 5 0 Hospital Practice, 2 2 0 Clinical Surgery, 2 4 0
Practical Chemis	stry,	*	- 3	3	0	Clinical Surgery 2 4 0
Anatomy, -	-		- 1	5	0	
Chemistry, - Practical Chemi- Anatomy, - Dissections,	-	-	. :	3	0	£7 11 0
			-		_	2, 1,
			£19	16	0	FOURTH WINTER SESSION.
						Medicine, £3 5 0 Hospital Practice, 4 4 0 Clinical Medicine, 3 5 0
						Hospital Practice.
SECOND	SUMME	R SES	SION.			Clinical Medicine - 9 5 0
TTI-4-1			0.0	0	-0	Cimical Medicine,
Histology, - Dissections,			- 35	2	0	£10 14 0
Dissections,	*	*	- 2	2	0	£10 14 0
			£4	4-	0	FIFTH SUMMER SESSION.
			201	4	U	Clinical Medicine, £2 4 0
						Medical Jurisprudence and Hygiene, 3 5 0
SECOND	WINDS	D OPC	MON			Medical Jurisprudence and Hygiene, 3 5 0 Insanity, 2 2 0 Practical Midwifery, 2 2 0 Eye Diseases, 2 2 0
						Practical Midwifery, 2 2 0
Dissections,	-		- £3	3	0	Eve Diseases 9 9 0
Dissections, Physiology,	+		. 9	5	0	Eye Diseases, 2 2 0
			_	-		011 15 0
			£	8	0	£11 15 0
						FIFTH WINTER SESSION.
						Hospital Descript Co. 1 0
THIRD	SUMME	R SES	SION.			Hospital Practice, - £4 4 0 Dispensary 3 3 0
						Dispensary, 3 3 0
Pathology, - Materia Medica,	*	*	- 20	0	0	Fevers, 2 2 0
Materia Medica,			- 2	0	0	Hospital Practice, £4 4 0 Dispensary, 3 3 0 Fevers, 2 2 0 Vaccination, 1 1 0
			-		-	
			£	10	0	£10 10 0

Students are also recommended to study in the fifth year the following subjects:—

```
Operative Surgery, - £3 3 0 | Diseases of Ear and Throat, - £2 0 0 Diseases of Children, - 2 2 0 | Diseases of Skin, - - 2 2 0 |

Fee for Examinations, £30.
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The appointment of Resident Physician to the wards in the Royal Infirmary under the care of the Ordinary Physicians is

<sup>\*</sup> See footnote on previous page.

open only to those members of their Clinical Class who have clerked in their wards for at least six months. Six Residentships are appointed during the year for a period of six months each. Resident Surgeons are also appointed by the Ordinary Surgeons to the Hospital.

# Lecturers in School of Medicine.

ANATOMY AND PRACTICAL ANATOMY.

J. Ryland Whitaker, B.A., M.B.Lond., F.R.C.P.E., L.R.C.S.Ed., Surgeons' Hall. Richard J. A. Berry, M.D., F.R.C.S.Ed., New School, Bristo Street.

CHEMISTRY AND PRACTICAL CHEMISTRY.

Stevenson Macadam, Ph.D., F.R.S.E., F.I.C., Surgeons' Hall.
W. Ivison Macadam, F.R.S.E., F.I.C., F.C.S., Surgeons' Hall, and Professor of Chemistry, New Veterinary College, Leith Walk.
A. P. Aitken, D.Sc., Royal (Dick) Veterinary College, Clyde Street.

#### PRACTICAL CHEMISTRY.

J. Falconer King, F.I.C., F.C.S., Minto House, Chambers Street. J. B. Readman, D.Sc., F.R.S.E., 4 Lindsay Place (Geo. IV. Bridge).

Physics and Practical Physics.

Dawson Turner, M.D., F.R.C.P.Ed., M.R.C.P.Lond., B.A.

#### ELEMENTARY BIOLOGY.

J. Arthur Thomson, M.A., F.R.S.E., and Robert Turnbull, B.Sc. (jointly) Surgeons' Hall.

Physiology and Practical Physiology.

D. Noël Paton, M.D., C.M., B.Sc., F.R.C.P.Ed., Surgeons' Hall.

GENERAL PATHOLOGY AND MORBID ANATOMY, AND PRACTICAL PATHOLOGY.
Alex. Bruce, M.A., M.D., C.M., F.R.C.P.Ed., F.R.S.E., Surgeons' Hall.
R. F. C. Leith, M.A., M.B., C.M., B.Sc., F.R.C.P.Ed., New School, Bristo Street.

MATERIA MEDICA AND THERAPEUTICS, AND PRACTICAL PHARMACY.
William Craig, M.D., F.R.C.S.Ed., F.R.S.E., Surgeons' Hall.
Ralph Stockman, M.D., F.R.C.P.Ed., F.R.S.E., New School, Bristo Street.

#### SURGERY.

F. M. Caird, M.B., C.M., F.R.C.S.Ed., New School, Bristo Street.
J. W. B. Hodsdon, F.R.C.S.Ed., &c., Surgeons' Hall.
J. Shaw M'Laren, M.A., M.B., C.M., F.R.C.S.Ed., New School, Bristo Street.
H. Alexis Thomson, M.D., C.M., B.Sc., F.R.C.S.Ed., M.R.C.S.Eng., Minto House, Chambers Street.
David Wallace, M.B., C.M., F.R.C.S.Ed., M.R.C.S.Eng., Nicolson Square.

#### PRACTICE OF PHYSIC.

John Wyllie, M.D., F.R.C.P.Ed., 27 Nicolson Square.
Alex. James, M.D., F.R.C.P.Ed., New School, Bristo Street.
J. O. Affleck, M.D., F.R.C.P.Ed., F.R.C.S.Ed., Surgeons' Hall.
Byrom Bramwell, M.D., F.R.C.P.Ed., F.R.C.S.Ed., New School, Bristo Street.
Geo. A. Gibson, M.D., D.Sc., F.R.C.P.Ed., Minto House, Chambers Street.
R. W. Philip, M.D., F.R.C.P.Ed., New School, Bristo Street.

#### CLINICAL SURGERY.

John Duncan, LL.D., F.R.C.S.Ed. } jointly.
A. G. Miller, F.R.C.S.Ed.
P. Hume Maclaren, M.D., F.R.C.S.Ed.
Chas. W. MacGillivray, M.D., F.R.C.S.Ed. } jointly.

#### CLINICAL MEDICINE.

Andrew Smart, M.D., LL.D., F.R.C.P.Ed.
John Wyllie, M.D., F.R.C.P.Ed.
Alex. James, M.D., F.R.C.P.Ed.
J. O. Affleck, M.D., F.R.C.P.Ed., F.R.C.S.Ed.
J. Halliday Croom, M.D., F.R.C.P.Ed., F.R.C.S.Ed. (for Diseases of Women).

#### MIDWIFERY AND DISEASES OF WOMEN AND CHILDREN.

J. Halliday Croom, M.D., F.R.C.P.Ed., F.R.C.S.Ed., Minto House.
D. Berry Hart, M.D., F.R.C.P.Ed., Surgeons' Hall.
A. H. F. Barbour, M.D., B.Sc., F.R.C.P.Ed., New School, Bristo Street.
R. Milne Murray, M.B., F.R.C.P.Ed., New School, Bristo Street.
F. W. N. Haultain, M.D., F.R.C.P.Ed., New School, Bristo Street.
James Haig Ferguson, M.D., F.R.C.P.Ed., M.R.C.S.Eng., 41 Chambers Street.

#### MEDICAL JURISPRUDENCE AND PUBLIC HEALTH.

Sir Henry D. Littlejohn, M.D., LL.D., F.R.C.S.Ed., Surgeons' Hall.

#### DISEASES OF THE EYE.

Geo. Mackay, M.D., F.R.C.S.Ed., M.R.C.S.Eng., Surgeons' Hall, and Eye Dispensary, 31 Chambers Street.
 William George Sym, M.D., F.R.C.S.Ed., New School, Bristo Street.

#### INSANITY.

J. Batty Tuke, M.D., D.Sc., F.R.C.P.Ed., and John Macpherson, M.B., C.M., F.R.C.P.Ed., (jointly), Surgeons' Hall and Stirling District Asylum.

#### VACCINATION.

William Husband, M.A., M.D., F.R.C.S.Ed., Royal Dispensary, Richmond Street.
J. B. Buist, M.D., F.R.C.P.Ed., Western Dispensary and Cowgate Dispensary.

Francis Cadell, M.B., C.M., F.R.C.S.Ed., New Town Dispensary, Thistle St.

#### NATURAL HISTORY.

J. Arthur Thomson, M.A., F.R.S.E., New School, Bristo Street.

#### BOTANY AND PRACTICAL BOTANY.

A. N. M'Alpine, B.Sc., Minto House. Robert Turnbull, B.Sc., New School, Bristo Street.

#### DISEASES OF CHILDREN.

Joseph Bell, M.D., F.R.C.S.Ed., and T. M. Burn-Murdoch, M.B., C.M., Sick

Children's Hospital, Sciennes Road.

John Thomson, M.D., F.R.C.P.Ed., New School, Bristo Street, and Sick Children's Hospital Dispensary.

J. W. Ballantyne, M.D., F.R.C.P.Ed., Minto House, Chambers Street.

G. H. Melville Dunlop, M.D., F.R.C.P.Ed., Oddfellows' Hall, Forrest Road, and Sick Children's Dispensary, Lauriston Lane.

DISEASES OF THE EAR, NOSE, AND THROAT.

J. J. Kirk Duncanson, M.D., F.R.C.P.Ed., Hospital, 6 Cambridge Street. Peter M'Bride, M.D., F.R.C.P.Ed., Royal Infirmary.

#### DISEASES OF THE SKIN.

W. Allan Jamieson, M.D., F.R.C.P.Ed., Royal Infirmary. Stewart Stirling, M.D., F.R.C.S.Ed., Surgeons' Hall, and Skin Dispensary, 6 Drummond Street.

DISEASES OF THE CHEST.

R. W. Philip, M.D., F.R.C.P.Ed., Dispensary, 26 Lauriston Place.

DISEASES OF THE CIRCULATION.

Geo. A. Gibson, M.D., D.Sc., F.R.C.P.Ed., Minto House.

LARYNGOLOGY AND MEDICAL OPHTHALMOLOGY. John Wyllie, M.D., F.R.C.P.Ed., 27 Nicolson Square.

SYSTEMATIC GYNÆCOLOGY.

J. Halliday Croom, M.D., F.R.C.P.Ed., F.R.C.S.Ed., Minto House. N. T. Brewis, M.B., C.M., F.R.C.P.Ed., 27 Nicolson Square.

ADVANCED GYNÆCOLOGY.

D. Berry Hart, M.D., F.R.C.P.Ed., Surgeons' Hall.

CLINICAL MIDWIFERY.

J. Halliday Croom, M.D., F.R.C.P.Ed., F.R.C.S.Ed., Minto House. D. Berry Hart, M.D., F.R.C.P.Ed., Royal Maternity Hospital.

CLINICAL GYNÆCOLOGY.

N. T. Brewis, M.B., C.M., F.R.C.P.Ed., New Town Dispensary and 6 Cambridge Street.

DISEASES OF THE TROPICS AND CLIMATOLOGY.

R. W. Felkin, M.D., F.R.S.E., F.R.G.S., L.R.C.S.Ed., New School, Bristo St.

MEDICAL ELECTRICITY.

Dawson Turner, M.D., F.R.C.P.Ed., M.R.C.P.Lond.

#### CLASSES FOR WOMEN.

ANATOMY AND PRACTICAL ANATOMY.

John Hardie, M.B., C.M., F.R.C.S.Ed., Surgeon Square. J. Ryland Whitaker, B.A., M.B.Lond., F.R.C.P.Ed., L.R.C.S.Ed., Minto House.

CHEMISTRY AND PRACTICAL CHEMISTRY.

W. Ivison Macadam, F.R.S.E., F.I.C., F.C.S., Surgeons' Hall and Chambers

A. P. Aitken, D.Sc., F.R.S.E., Surgeon Square.

PHYSICS AND PRACTICAL PHYSICS.

Dawson Turner, M.D., F.R.C.P.Ed., M.R.C.P.Lond., Surgeons' Hall.

ELEMENTARY BIOLOGY.

J. Arthur Thomson, M.A., F.R.S.E., and Robert Turnbull, B.Sc. (jointly), Surgeons' Hall.

J. Arthur Thomson, M.A., F.R.S.E., in Zoology, and Robert Turnbull, B.Sc. in Botany, Surgeon Square.

PHYSIOLOGY AND PRACTICAL PHYSIOLOGY.
D. Noël Paton, M.D., B.Sc., F.R.C.P.Ed., Surgeons' Hall.

GENERAL PATHOLOGY AND PRACTICAL PATHOLOGY.
William Russell, M.D., F.R.C.P.Ed., Minto House.
R. F. C. Leith, M.B., C.M., F.R.C.P.Ed., Surgeon Square.

MATERIA MEDICA AND THERAPEUTICS AND PRACTICAL PHARMACY.
William Craig, M.D., F.R.C.S.Ed., F.R.S.E., Minto House.
Ralph Stockman, M.D., F.R.C.P.Ed., Surgeon Square.

#### SURGERY.

H. Alexis Thomson, M.D., C.M., B.Sc., F.R.C.S.Ed., M.R.C.S.Eng., Minto House. J. Shaw M'Laren, M.B., C.M., F.R.C.S.Ed., Surgeon Square.

PRACTICE OF PHYSIC.

J. Graham Brown, M.D., F.R.C.P.Ed., Surgeon Square. R. W. Philip, M.D., F.R.C.P.Ed., Minto House.

CLINICAL SURGERY.

J. M. Cotterill, M.B., C.M., F.R.C.S.Ed., Royal Infirmary.

CLINICAL MEDICINE.

Byrom Bramwell, M.D., F.R.C.P.Ed., F.R.C.S.Ed., Royal Infirmary.

MIDWIFERY AND DISEASES OF WOMEN AND CHILDREN.

Sophia Jex-Blake, M.D., M.K.Q.C.P.I., Surgeon Square. R. Milne Murray, M.B., F.R.C.P.E., J. W. Ballantyne, M.D., F.R.C.P.Ed., Minto House.

MEDICAL JURISPRUDENCE AND PUBLIC HEALTH.

Sir Henry D. Littlejohn, M.D., LL.D., F.R.C.S.Ed., Surgeons' Hall and Surgeon Square.

DISEASES OF CHILDREN.

Joseph Bell, M.D., F.R.C.S.Ed., and T. M. Burn-Murdoch, M.B., C.M., Sick Children's Hospital, Sciennes Road.

A. S. Cumming, M.D., F.R.C.P.Ed., F.R.S.E., Minto House.

DISEASES OF THE EYE.

Geo. A. Berry, M.B., F.R.C.S.Ed., Surgeon Square. George Mackay, M.D., F.R.C.S.Ed., M.R.C.S.Eng., Surgeons' Hall.

VACCINATION.

William Husband, M.D., F.R.C.S.Ed., Surgeon Square. Francis Cadell, M.B., C.M., F.R.C.S.Ed., New Town Dispensary.

INSANITY.

J. Batty Tuke, M.D., D.Sc., F.R.C.P.Ed., Surgeons' Hall. Thomas S. Clouston, M.D., F.R.C.P.Ed., Surgeon Square.

DISPENSARY PRACTICE.

New Town Dispensary and Cowgate Dispensary.

NATURAL HISTORY.

J. Arthur Thomson, M.A., F.R.S.E., New School, Bristo Street and Surgeon Square.

BOTANY AND PRACTICAL BOTANY.
Robert Turnbull, B.Sc., Minto House.

PRACTICAL GYNECOLOGY.
N. T. Brewis, M.B., F.R.C.P.Ed., 6 Cambridge Street.

FEVERS.

The City Hospital, Infirmary Street.

DISEASES OF THE TROPICS AND CLIMATOLOGY.
R. W. Felkin, M.D., L.R.C.S.Ed., F.R.S.E., F.R.G.S., New School, Bristo Street.

# Lectures, Classes, and Demonstrations in the School of Medicine.

#### ANATOMY.

J. RYLAND WHITAKER, B.A., M.B.Lond., F.R.C.P.E., L.R.C.S.Edin., Surgeons' Hall, Examiner in Anatomy, Triple Qualification.

#### WINTER SESSION.

1. Lectures on Anatomy will be given at 1 p.m., according to the printed syllabus; and will be fully illustrated by fresh Dissections and Preparations, Models, and Diagrams. Written Examinations are held at stated periods, and medals and prizes awarded.

> [The Lectures qualify for the various Universities and Examining Boards both in Medicine and Dentistry.]

2. Practical Anatomy.—The Dissecting Rooms are open from 9 a.m. till 5 p.m. under the personal superintendence of Mr J. Ryland Whitaker, assisted by the Senior Demonstrator, Mr Wynstone Waters and by other Demonstrators.

3. Demonstrations will be given at 9 a.m., at 11 a.m., and at 4 p.m. In these classes the entire body will be Dissected and Demonstrated, special attention being given to Topographical Anatomy.

4. Medical and Surgical Anatomy Demonstrations are given on the living subject at hours to suit those attending.

5. Tutorial Classes for seniors and juniors are held at various

hours during the day.

At the end of the Winter Session a Special Gold Medal, with a Certificate of Merit, is awarded to the most distinguished senior student in Practical Anatomy.

Medals, Prizes, and Certificates of Merit are awarded at the end of the session to the students who are first in each class.

#### SUMMER SESSION.

The Dissecting Rooms are open from 9 a.m. till 5 p.m., and similar Demonstrations and Tutorial Classes will be held during the Summer Session.

The courses are accepted by the Universities and Royal Colleges

for both Medical and Dental Qualifications.

Special Classes in Advanced Anatomy are conducted when

required for Fellowships or other Qualifications.

For further particulars apply Secretary, Anatomical Department, School of Medicine, Surgeons' Hall.

#### ANATOMY.

RICHARD J. A. BERRY, M.D., C.M., F.R.C.S.Edin., New School, Bristo Street.

Winter Session.—The following classes for Medical and Dental Students are conducted:—

1. Lectures on Anatomy, 1 p.m.—In this Course the various Systems of the Body are described, and fully illustrated by Models, Diagrams, fresh Dissections, and Preparations. Fees—First Course, £3, 5s.; University students, £4, 4s.; Second Course, £2, 4s.

[The Lectures qualify for graduation in the University and for the various Licensing Boards.]

2. Practical Anatomy.—The Dissecting Rooms are open daily, under the direct superintendence of Dr Berry, by Demonstrators from 9 a.m. till 5 p.m., and the students are trained to dissect carefully and to make themselves familiar with the parts. Fee, £3, 3s.

Students may commence this Class in summer before they have attended the course of Lectures, in which case they will be instructed daily on Osteology, and will receive Demonstrations on the Anatomy of the parts. The Osteology Room is open daily. Class fee, £2, 2s.

3. Systematic Demonstrations on Anatomy, 4 p.m. Fee,

£2, 2s., or, if taken along with Practical Anatomy, £1, 1s.

4. Demonstrations on Applied Anatomy.—This class is specially intended for senior students, and will meet as occasion requires at hours to be subsequently arranged. Fee, £1, 1s.

Summer Session.—Systematic Demonstrations are held daily at 9 and 11 a.m. The Practical Anatomy Rooms are open daily from

9 a.m. till 5 p.m. Fee, £2, 2s.

Text-books—Quain's "Anatomy," Ellis' "Demonstrations of Anatomy," Cunningham's "Manual of Practical Anatomy."

#### CHEMISTRY.

STEVENSON MACADAM, Ph.D., F.R.S.E., F.C.S., F.I.C., &c., Lecture-room and Laboratories, Surgeons' Hall.

Systematic Lectures on Chemistry and Chemical Physics commence on 13th October, and are delivered daily at 10 a.m. during the Winter Session. These Lectures form a complete Course and include Lectures on Technological Chemistry. Tutorial and class Examinations are held during the session.

MEDICAL PRACTICAL CHEMISTRY during the Winter, Spring, and Summer sessions, for Medical, Dental, and Pharmaceutical

students. Winter class begins on 1st October.

Medical Analytical Chemistry (Public Health) includes the Detection of Poisons in Organic Mixtures; the Analysis of Air and other Gases, Waters, Foods, and Drugs, &c., &c., as required for Degrees in Science, including Public Health.

TECHNICAL ANALYTICAL CHEMISTRY bearing upon Agriculture,

Mining, and Manufacturing Industries.

These Courses qualify for all the Examining Boards.

#### CHEMISTRY.

W. IVISON MACADAM, F.R.S.E., F.I.C., F.C.S., Surgeons' Hall, and New Veterinary College, Leith Walk.

Winter—General Lecture Course, 9 a.m. (New Veterinary College).

Practical and Analytical Laboratories open daily from 9 a.m. till
5 p.m. (Surgeons' Hall).

Women and Dental Students (Surgeons' Hall), Lectures at 12 noon.

Practical Chemistry at suitable hours.

AGRICULTURAL CHEMISTRY.—Lectures (Surgeons' Hall), 3 p.m. The Lectures commence early in October and in May, form a complete Course, and qualify for graduation in Medicine, Science (including Agriculture), Public Health, for Diplomas in Veterinary Science, and for Pharmaceutical Societies, Dental Diplomas, Civil Service, &c.

AGRICULTURAL ANALYSIS.—(Surgeons' Hall) at suitable hours.

Summer—Practical and Analytical Laboratories open daily from 9 a.m. till 5 p.m. (Surgeons' Hall).

#### CLASSES FOR WOMEN.

(Medical College for Women, Minto House, Chambers Street. Winter Session—Lectures commences on 13th October at 12 noon. Summer Session—Practical, at 2 p.m.

TUTORIAL CLASSES are held regularly throughout the Sessions.

A Special Course of Practical Instruction is given in the Laboratory to Candidates for Diplomas in Public Health.

Class-books—"Elements of Modern Chemistry" (Wurtz); "Practical Tables" (W. Ivison Macadam).

#### CHEMISTRY.

A. P. AITKEN, D.Sc., Royal (Dick) Veterinary College, 8 Clyde Street.

Winter—Lectures, 10 a.m.
Practical and Analytical, 9 a.m. till 5 p.m.
Summer—Practical and Analytical, 9 a.m. till 5 p.m.

The Lectures are fully illustrated by experiments, and the Courses include the subject-matter of the various Examining Boards, and are arranged to afford the Student an opportunity of acquiring a knowledge of the principles of Chemical Science and their application to Medicine.

#### PRACTICAL CHEMISTRY.

J FALCONER KING, F.I.C., F.C.S., &c., Minto House, Analyst to the City of Edinburgh.

1. Practical Medical Chemistry.—The Laboratories are open daily from 9 till 5 throughout the year for instruction in those subjects with which medical students are expected to be specially conversant. Fee, £3, 3s.

2. The Laboratories are open daily for instruction in Technical

and Analytical Chemistry.

These Classes qualify for graduation in Medicine in the University of Edinburgh, the Royal College of Physicians and

Surgeons, &c.

DIPLOMA IN PUBLIC HEALTH.—Special facilities are provided for students preparing for this Diploma. The class qualifies for Cambridge University as well as for the Royal Colleges in Edinburgh.

#### PRACTICAL CHEMISTRY.

JAMES B. READMAN, D.Sc., F.R.S.E., 4 Lindsay Place, George IV. Bridge.

PRACTICAL AND ANALYTICAL CHEMISTRY.—For Medical, Science,

Public Health, and Technical Students.

The Laboratory is open daily throughout the year, from 9 a.m. till 5 p.m., is under the direct supervision of Dr Readman, and is equipped for every variety of work. Students attending it are qualified for the Medical and Science Degrees of the University of Edinburgh, and the Royal Colleges of Physicians and Surgeons.

Prospectus and full particulars on application at the Laboratory.

#### PHYSICS.

Dawson Turner, B.A.Dalhousie, Canada, M.D., C.M.Edin., F.R.C.P.E., M.R.C.P.Lond., Surgeons' Hall, Examiner in Physics, Royal College of Physicians of Edinburgh.

Winter Session, 11 a.m. Summer Session, 12 noon.

The Course, consisting of about Sixty Lectures, includes—
PROPERTIES OF MATTER.—Impenetrability; Divisibility; Density; Elasticity; Gravitation; Inertia; Different states of matter.

KINEMATICS.—Various kinds of motion; Definition and measurement of velocity and acceleration; Composition and resolution of velocities.

Kinetics.—Mass, Density, Force; Laws of motion; Weight; Energy, potential, and kinetic. Work; Momentum; Conservation of energy; Gravity.

STATICS.—Composition and resolution of forces; Graphic representation of resultant; Centre of gravity; Equilibrium; Friction.

Machines.—Functions of a machine; Simple pendulum; Mechanical powers; Balance.

Hydrostatics.—Definition of a perfect fluid; Fluid pressure; Principle of Pascal and Archimedes; Floating bodies; Specific gravity; Hydrometers; Motion of liquids in rigid and elastic tubes of uniform or of variable sectional area; Pulse wave; Capillarity;

PNEUMATICS.—Atmospheric pressure; Barometers; Boyle's law; Air-pumps; Syphon.

Sound: Production and propagation of sound; Velocity of sound; Intensity, pitch, and quality of Musical sounds; Reflection of sound; Musical scale; Monochord; Organ pipes; Reed pipes; Tuning forks; the Ear; Stethoscope.

Heat.—Its nature and effects; Temperature; Thermometers; Hygrometry; Specific heat; Latent heat; Conduction; Convection, Padiation, Thermodynamics

tion; Radiation; Thermodynamics.

Light.—Geometrical optics; Reflection; Refraction mirrors; Lenses; Microscope; the Eye as an optical instrument; Hypermetropia; Myopia; Astigmatism; the Ophthalmoscope; Spectrum Analysis; Double refraction; Polarisation; the Saccharometer; Analysis of diabetic urine; Diffraction.

STATICAL ELECTRICITY.—Production of electricity by friction; Laws of electric action; Distribution of electricity on conductors; Potential; Capacity; Accumulators or condensers; Leyden jar; Electrophorus; Electrical machines; Electroscopes; Electrometer.

Magnetism.—Laws of magnetic action; Poles; Lines of force; Distribution of magnetism; Magnetic field; Magnet induction; Earth's magnetism.

CURRENT ELECTRICITY. - Contract force ; Galvanic cells ; Ohm's

law; Thermo-electricity; Heating and luminous effects of current; Electrolysis; Batteries; Voltameters.

Electro-Magnetism. — Magnetic action of current; Electro-mag-

nets or by currents; Galvanometers.

Currents induction.—Induction of currents by magnets or by currents; Self-induction; Induction coil; Principle of dynamo; Lenz's law; Telephone; Microphone; Electric Chronograph; Secondary cells.

The Course will be made as much as possible a practical one, and will have especial reference to medical applications. Fee, £3, 3s.

Text-books—Balfour Stewart's "Elementary Physics," Macgregor Robertson's "Physiological Physics," Dawson Turner's "Medical Electricity."

#### PRACTICAL PHYSICS.

A Practical Class, to enable students to familiarise themselves with Physical and especially Optical and Electrical apparatus, will be held in May and October.

Fee, £3, 3s., or if taken with the Lectures, £2, 2s.

#### ELEMENTARY BIOLOGY.

J. ARTHUR THOMSON, M.A., F.R.S.E., and ROBERT TURNBULL, B.Sc., Surgeons' Hall.

> Winter Session, 3 p.m. daily up to Christmas. Summer Session, 11 a.m. daily.

A Course of Lectures and Practical work adapted to meet the Regulations which prescribe a Course of Elementary Biology for candidates for the Triple Qualification Board will be given, including the properties of Protoplasm; the Characteristics of Unicellular Organisms, and their relation to Multicellular Organisms; the main Distinctions between Animals and Plants; the characters of the chief classes of the Animal Kingdom.

Practical instruction will be given on the main points in the

Structure of the following forms :-

A. Amœba; Paramæcium; Hydra; Lobster or Crayfish; Frog;

Pigeon:

B. Yeast; Bacterium; Penicillium; Fern; Rose; and an elementary knowledge of the functions of the various Structures in the higher animals and plants enumerated.

Practical instruction in the general structure of the animal and

vegetable types above specified will be given.

Text-books—" Elementary Biology" by Huxley and Martin, or by T. J. Parker, or by Chalmers Mitchell.

#### INSTITUTES OF MEDICINE—PHYSIOLOGY.

D. NOEL PATON, M.D., B.Sc.Edin., F.R.C.P.E., Surgeons' Hall.

Winter Session—Systematic Course.—This Course consists of 100 Lectures given daily at 10 a.m., throughout the Winter Session. In these Lectures the Physiology of the various Tissues, Organs, and Systems is described; the Lectures being illustrated by Diagrams, Lantern Demonstrations, Preparations, and Experiments. The Class is divided into small sections, which meet in the Laboratory at suitable hours in the afternoon, so that each student may have an opportunity of performing and studying the more practically important physiological experiments.

Histological Demonstrations are given in the Laboratory throughout the Session, when the structures of the organs discussed in the Lectures are fully illustrated.

Summer Session—Practical Physiology.—This Course consists of between Fifty and Sixty Meetings of the Class, and students are taken in sections at 9 a.m., and other suitable hours.

In it are studied practically—(1) Histology, including the use of the Microscope, and the Preparation, Examination, and Preservation of specimens of most of the Tissues and Organs of the body. (2) Physiological Chemistry, including the use of the Spectroscope, Analysis of wine, &c. (3) Experimental Physiology.

#### GENERAL PATHOLOGY.

ALEX. BRUCE, M.A.Aberd., M.D., C.M. Edin., F.R.C.P.E., F.R.S.E.,
Surgeons' Hall,
Pathologist, Royal Hospital for Sick Children; and Assistant Physician
(late Pathologist), Royal Infirmary, Edinburgh.

# Winter Session, - - 3 p.m.

Course of 100 Lectures qualifying for graduation at the Universities of Edinburgh and London, and other Examining Boards. The Lectures are arranged in the following order:—

1. The first portion of the Course is devoted to General Pathology, the causes and processes of disease.

2. The second portion to the morbid anatomy of special organs.
3. Demonstrations of morbid specimens, and microscopic speci-

mens are given several times a week after Lecture.

PRACTICAL PATHOLOGY.—Summer Session, at 8 and 9 a.m. Winter Session at 9 a.m., and hours to be advertised.

Written and Practical Examinations are held during the Sessions.

Text-books—Systematic course :—Thoma's Text-book of General Pathology translation by Dr Bruce.

### GENERAL PATHOLOGY AND MORBID ANATOMY.

R. F. C. Leith, M.B., B.Sc., F.R.C.P.E., New School, Bristo Street, Pathologist, Royal Infirmary, Edinburgh.

Winter Session.—Course of Lectures on General Pathology and Morbid Anatomy, at 3 p.m. The main points in the Lectures are illustrated by microscopical and museum preparations. Instruction in Practical Pathology and Morbid Anatomy, at 9 a.m.

Summer Session. — A Course of instruction on Practical Patho-

logy and Morbid Anatomy is given at 8, 9, and 10 a.m.

#### MATERIA MEDICA AND THERAPEUTICS.

WILLIAM CRAIG, M.D.Edin., F.R.C.S.E., F.R.S.E., &c., Surgeons' Hall, Examiner in Materia Medica, University of Edinburgh, and Royal College of Surgeons, Edinburgh.

MATERIA MEDICA AND THERAPEUTICS.—Two Courses of Lectures on Materia Medica and Therapeutics are given annually.

Certificates of attendance on the Winter Course qualify for

graduation in the Universities of Edinburgh, Glasgow, &c.

Attendance on the Summer Course qualifies for the University of London, Triple Qualification, and all Licensing Boards.

The Course given during the Winter Session embraces:—

The Natural History, sensible and chemical properties, physiological action (pharmacology), therapeutical uses, doses, and modes of administering remedies, including inorganic substances, chemical products, vegetable and animal substances.

Such subjects as Dietetics, heat and cold, climate, &c., will also

be discussed.

The Lectures are illustrated by a large collection of Materia Medica specimens, &c.

Examinations will be held in the Classes during both Sessions.

PRACTICAL MATERIA MEDICA, including PRACTICAL PHARMACY.—
Instruction in these subjects is given both during the Winter and Summer Sessions.

Hours of Attendance.—The Lectures on Materia Medica and Therapeutics are delivered daily during the Winter at 2 p.m., and during the Summer at 9 a.m. and 11 a.m. The Classes of Practical Materia Medica, including Practical Pharmacy, meet daily during the Winter at 9 a.m. and 3 p.m., or at such other hours as will suit students. During the Summer they meet daily at 10 a.m. and 2 p.m. They are conducted personally by Dr Craig during both Sessions.

Certificates of Attendance on the Practical Classes qualify for

graduation in the Universities of Edinburgh, Glasgow, &c., and all Licensing Boards.

Text-books—Craig's "Manual of Materia Medica and Therapeutics," Ringer's "Therapeutics," Murrell's "Pharmacology and Therapeutics," Garrod's "Manual," Mitchell Bruce's "Materia Medica," &c.

# MATERIA MEDICA AND THERAPEUTICS, AND PRACTICAL MATERIA MEDICA, INCLUDING PRACTICAL PHARMACY.

RALPH STOCKMAN, M.D., F.R.C.P.E., New School, Bristo Street, Assistant Physician to the Royal Infirmary.

Winter, 2 p.m. . . Materia Medica and Therapeutics. Summer, 9 a.m. . . Materia Medica and Therapeutics. 10 a.m.—Practical Materia Medica and Pharmacy.

The Course shall include the sources and characters of Medicines, the preparation, quality, and classification of Medicine, the action of Medicines in the body, prescribing, official Medicines of the British Pharmacopæia.

#### SURGERY.

F. M. CAIRD, M.B., C.M., F.R.C.S.E., New School, Bristo Street, Assistant Surgeon, Royal Infirmary; late Senior Assistant to Professor of Surgery, Edinburgh University.

Winter Session, 2 p.m. Summer Session, 4 p.m.

A complete Course of Lectures on Principles and Practice of Surgery is given in the Winter, and a Course of Operative Surgery and Surgical Anatomy is given in the Summer, in which Students are taught to perform the minor and major operations.

The Courses are recognised by the University of Edinburgh for Graduation, by the Triple Qualification Board, and by other Qualifying Boards.

#### SURGERY.

J. W. B. Hodsdon, F.R.C.S.E., &c., Surgeons' Hall, Assistant Surgeon, Royal Infirmary.

Winter Session—Systematic Surgery.

The Course comprises:—(1) A complete Systematic Course on Principles and Practice of Surgery. Lectures daily at 2 p.m. (2) Tutorial Classes in sections at suitable hours for Practical Work.

Summer Session—Operative Surgery and Surgical Anatomy.—
This Class begins in the middle of April, and meets daily, at 8 a.m., until the middle of June. The course comprises:—(1) Surface Markings, Surgical Anatomy, and Surgical Operations. (2) Anatomy and Treatment of Fractures and Dislocations. (3) Demonstrations on Surgical Pathology and Instruments and Appliances.

Tutorial Classes are held in sections at suitable hours.

The Courses are recognised by the University of Edinburgh for Graduation, by the Triple Qualification Board, and by other Qualifying Boards.

#### SURGERY.

J. Shaw M'Laren, M.A., M.B., C.M.Ed., F.R.C.S.Ed., New School, Bristo St. Assistant Surgeon, Royal Infirmary.

Winter Session, . . 2 p.m. Lectures on the Principles and Practice of Surgery.

Summer Session, . . 8 a.m. Operative Surgery and Surgical Anatomy.

This Course will include the principal operations performed in Surgical Practice, e.g., Amputations, Excision of Joints, Ligation of Arteries, &c. As far as possible the instruction given will be thoroughly practical, and in operating personal supervision will be given to every Student. Fee, £3, 3s.

Tutorial Classes during both Sessions for Practical Instruction

in the use of Bandages and Surgical Appliances.

The Courses are recognised by the University of Edinburgh, the Triple Qualification Board, and other Examining Boards.

#### SURGERY.

H. Alexis Thomson, M.D., C.M., B.Sc. (Public Health, Edin.), F.R.C.S.Ed., Minto House.

Assistant Surgeon, Royal Infirmary, and Surgeon to the Deaconess Hospital, Edinburgh.

Winter Session, . . . 2 p.m. Lectures on the Principles and Practice of Surgery :—

1. A complete Course of Systematic Lectures.

- 2. Practical Instruction in Bandaging and the Treatment of Fractures and Dislocations on the living subject. This Class is divided into sections.
- 3. Demonstrations of Surgical Instruments and Appliances, and of Specimens and Lantern Slides illustrating Surgical Pathology.

4. Three Written Class Examinations.

Practical Instruction is given in Bandaging, Surgical Appliances, and Surgical Pathology.

Summer Session, . . . 8 a.m.

Operative Surgery and Surgical Anatomy.

This Class, which is essentially a practical one, meets daily from the middle of April till the middle of June. In addition to Surgical Anatomy and Operations, instruction is given in the treatment of Fractures and Dislocations, and in the uses of Surgical Instruments and Appliances.

The above Courses qualify for the University of Edinburgh,

Triple Qualification, and other Examining Boards.

#### SURGERY.

DAVID WALLACE, M.B., C.M.Edin., F.R.C.S.Edin., M.R.C.S.Eng., 27 Nicholson Square.

Assistant Surgeon, Royal Infirmary; Hon. Surgeon to the Victoria Hospital for Diseases of the Chest; formerly Senior Assistant to the Professor of Surgery, University of Edinburgh.

Winter Session, 2 p.m.—A course of Lectures, which embraces a complete consideration of the Principles and Practice of Surgery. The Lectures are illustrated by Drawings, Pathological Specimens, and Surgical Appliances.

Summer Session, 8 a.m.—Operative Surgery and Surgical Anatomy. The Operations are performed on the cadaver by the

students under the supervision of the Lecturer.

Tutorial Classes are held during each session at hours most convenient for the students, and include (a) Practical Instruction in Bandaging and the Treatment of Fractures and Dislocations, (b) Demonstrations of Surgical Instruments and Appliances, (c) Surgical Anatomy and Pathology.

#### PRACTICE OF MEDICINE.

JOHN WYLLIE, M.D.Edin., F.R.C.P.Edin., Class Rooms, 27 Nicholson Square.

Physician and Lecturer on Clinical Medicine, Royal Infirmary, and Examiner in Clinical Medicine, University of Edinburgh.

Winter Session, . . . 9 a.m.

The Course of 100 Lectures includes—(1) Introductory Lectures on the Nature of Disease, and the Classification of Diseases.
(2) Zymotic Diseases. (3) General Diseases which are not of a Zymotic nature. (4) The Respiratory System. (5) The Circulatory System. (6) The Digestive System. (7) The Urinary System. (8) The Nervous System. (9) The Cutaneous System.

That the Course may be a comprehensive one, additional Lectures are given from time to time, as required, at a suitable hour in the afternoon. The Lectures are fully illustrated by Diagrams, Models, and Specimens.

Fee for the First Course, £3, 5s. University Students, £4, 4s.

Second Course, £2, 4s.

Summer Session, . . . 9 a.m.

Laryngology and Medical Ophthalmology, and the Uses of Electricity in Medical Treatment and Diagnosis, including a consideration of the following:—(1) Speech. (2) Diseases of the Fauces and Pharynx. (3) Vision. (4) Taste and Smell. (5) Hearing. (6) Cutaneous Sensibility and Muscular Sense. (7) Medical Electricity. The Lectures are illustrated by Diagrams, Models, Instruments, &c.

Practical instruction is given in the use of all the instruments employed, especially the Laryngoscope and Ophthalmoscope. Fee, £2, 2s.

#### PRACTICE OF MEDICINE.

ALEX. JAMES, M.D.Edin., F.R.C.P.E., F.R.S.E., New School, Bristo Street,

Physician and Lecturer on Clinical Medicine, Royal Infirmary, and

Examiner in Practice of Medicine, University of Edinburgh.

Winter Session, 9 a.m.—Full Course of Lectures, qualifying for graduation at the Universities of Scotland, Triple Qualification, and other Boards, and which shall include the causes, diagnosis, prognosis, and treatment of disease; the diseases of the various systems, &c.

The course will be illustrated by drawings, diagrams, and

specimens. Fee, £3, 5s. University Students, £4, 4s.

Summer Session, 9 a.m.—Practice of Medicine and Physical Diagnosis. The Course will include:—(1) The Medical Anatomy of the Thoracic and Abdominal Viscera, and a theoretical and practical consideration of the various means of Physical Diagnosis. (2) The Medical Anatomy of the Nervous System, and the Methods of Investigation of its Morbid Phenomena. (3) The Examination of the Blood, Sputum, &c. (4) The application in Diagnosis of the various Instruments—Cardiograph, Sphymograph, Pneumograph, Laryngoscope, Ophthalmoscope, Perimeter, &c.

This Summer Course will be made as much as possible a practical one, and is intended to act as supplementary to the ordinary

Systematic and Clinical Courses of Medicine. Fee, £3, 3s.

#### PRACTICE OF MEDICINE.

J. O. Affleck, M.D., F.R.C.P.E., F.R.C.S.E., Surgeons' Hall,

Examiner in Medicine and Clinical Medicine, Royal College of Physicians,

Edinburgh; and Physician and Lecturer on Clinical Medicine,

Royal Infirmary, Edinburgh.

### Winter Session, 9 a.m.

The Course, consisting of 100 Lectures in Winter, includes the following parts:—

1. Introductory. A reference to Nosology and Classifications of

Diseases into—(1) General Diseases; and (2) Local Diseases.

2. These Diseases are considered in reference to the parts and organs affected, and their Nature, Causes, Pathology, Symptoms, Diagnosis, Prognosis, and Treatment discussed. A complete Course is given, but as the subject is too wide to be dealt with minutely in one session, certain subjects are selected each year for more particular discussion.

The Course is illustrated by Morbid Specimens, Drawings,

Diagrams, Casts, Charts, &c.

Tutorial instruction, given regularly throughout the session, includes the use of the Ophthalmoscope, Laryngoscope, and other scientific instruments in diagnosis.

Class Examinations are conducted during the session.

Text-books—Fagge's, Osler's, Bristowe's, Robert's, or Taylor's "Practice of Medicine."

Lectures on Clinical Medicine are given alternately with the Ordinary Physicians in the Royal Infirmary every Tuesday and Friday of each session, at 12 noon.

#### PRACTICE OF MEDICINE.

BYROM BRAMWELL, M.D., F.R.C.P.E., F.R.C.S.E., New School, Bristo Street, Senior Assistant Physician and Lecturer on Clinical Medicine to Women, Royal Infirmary.

Winter, 9 a.m.—A Course of Lectures, including the General and Local Diseases, is given which qualifies for the University of

Edinburgh, Triple Qualification, and other Boards.

Clinical Lectures are given to Women Students during the Winter and Summer Sessions, and Wards Nos. 27 and 5p (2) are reserved for the purpose.

#### PRINCIPLES AND PRACTICE OF MEDICINE.

G. A. Gibson, M.D.Edin., D.Sc., F.R.C.P.E., F.R.S.E., Minto House, Assistant Physician to the Royal Infirmary; Physician to Deaconess Hospital.

Winter Session, 9 a.m.—The Course of Lectures delivered during the Winter Session embraces a complete account of the present state of Medical Science and Art. It comprises—I. General Considerations in regard to the Nature, Causes, Symptoms, and Treatment of Disease. II. Special Descriptions of Individual Diseases:—1. General Diseases, arising from—(a) Causes introduced from without; and (b) Causes arising from within. 2. Local Diseases affecting—(a) Digestive system; (b) Hæmopoietic system; (c) Circulatory system; (d) Respiratory system; (e) Urinary system; (f) Integumentary system; (g) Nervous system.

In addition to the daily Lectures and Demonstrations, Tutorial Classes are held for the purpose of teaching the ordinary methods of Physical Diagnosis, and of affording facilities for acquiring a knowledge of the uses of the Ophthalmoscope, Laryngoscope, and

Sphygmograph, as well as of Medical Electricity.

The Text-books recommended are those of Bristowe, Osler, Roberts, and Taylor, and of the smaller manuals those of Carter, Charteris, and Wheeler.

#### PRACTICE OF MEDICINE.

R. W. PHILIP, M.A., M.D., F.R.C.P.Ed., F.R.S.E., New School, Bristo Street.

Assistant Physician, Royal Infirmary; Physician to Victoria Hospital for Consumption and Diseases of Chest.

Winter Session, 9 a.m.; Summer, 9 a.m.

A course of Lectures on the Principles and Practice of Medicine is given during the Winter Session, and qualifies for the Universities and the various Medical Boards. The course is made as practical as possible by illustrating the Lectures with specimens, models, &c. In summer a Practical Course is given and comprises (1) a thorough and practical study of the methods of Medical Diagnosis, (2) an outline of the Diseases of the various systems, (3) abundant practice in the application of the methods of Diagnosis on the living subject.

#### PRACTICE OF PHYSIC.

J. J. Graham Brown, M.D.Edin., F.R.C.P.Edin., F.R.S.E., Class Rooms, Surgeons' Square.

Course for Women.

Winter Session, - - 10 a.m.

During the Winter Session a Course of Lectures on Practice of Physic is given, and includes a general consideration of the causes, diagnosis, prognosis, and treatment of disease.

Text-books recommended—Bristowe's "Practice of Medicine" (7th ed.), Reberts' "Theory and Practice of Medicine" (7th ed.), Osler's "Principles and Practice of Medicine" (2d ed.).

# CLINICAL SURGERY, ROYAL INFIRMARY.

John Duncan, LL.D., M.A., F.R.C.S.Edin., M.D.Edin., F.R.S.E., Extra Surgeon to Royal Infirmary, and Examiner in Clinical Surgery, University of Edinburgh,

A. G. MILLER, F.R.C.S.Edin., M.D.Edin., Surgeon to Royal Infirmary.

Winter and Summer Sessions in Royal Infirmary, Mondays and Thursdays, at 12 noon.—The Courses consist of Lectures in the Theatre, and Cliniques in the Lecturers' Wards (Nos. 10, 11, and 12) at the Infirmary, including the Symptoms, Diagnosis, and Treatment of Surgical Cases; of Operations in the Theatre, Practical Demonstrations, and Out-Patient Practice.

In addition to the Clinical Instruction, Tutorial Classes for Practical Surgery are held in the Royal Infirmary, under the

superintendence of Mr Duncan and Mr Miller.

The Courses qualify for the University of Edinburgh, Triple Qualification, and other Examining Boards.

### CLINICAL SURGERY, ROYAL INFIRMARY.

P. Hume Maclaren, M.D.Edin., F.R.C.S.Ed.,

Vice-President of the Royal College of Surgeons of Edinburgh; Surgeon to the

Royal Infirmary.

Royal Infirmary.

CHARLES WATSON MACGILLIVRAY, M.D., C.M.Edin., F.R.C.S.Edin.,

Surgeon to Royal Infirmary.

The fees are similar to those for Clinical Instruction in Medicine. The Course consists of Lectures on Clinical Surgery, delivered by Dr Maclaren and Dr MacGillivray, alternately, every Monday and Thursday of each session at 12 o'clock, and of Practical Classes conducted by the House Surgeons in the evening.

Dr Maclaren's operation day is Friday, and Dr MacGillivray's is

on Tuesday.

Out-patient Cliniques are conducted in the Large Theatre, by Dr P. H. Maclaren on Wednesday at 11, and by Dr MacGillivray on each alternate Saturday at 12.

The remaining days of each week are occupied with Operations in the Theatre, and Clinical Instruction in the wards between the

hours of 11 a.m. and 2 p.m.

Senior and Junior Cliniques are given in the wards. The Junior Clinique is conducted by Mr David Wallace, F.R.C.S.Ed., on Wednesday at 11, and the Senior Clinique by Dr Mac-

Gillivray on Friday at the same hour.

Two Written Examinations are held during the Winter Session and one during the Summer Session, Clinical Examinations being also added when necessary. Prizes in proportion to the size of the Class are given to both Senior and Junior Students. Prizes are also given in the Practical Class.

The appointments of Resident Surgeon in the Wards of the Ordinary Surgeons are open to those who have been members of their Clinical Class, and have clerked with one or other of them for six months. These appointments are determined by merit.

(Wards Nos. 15, 16, 17, and 18).

#### CLINICAL MEDICINE, ROYAL INFIRMARY.

JOHN WYLLIE, M.D., F.R.C.P.Ed. J. O. AFFLECK, M.D., F.R.C.P.Ed. ANDREW SMART, M.D., LL.D., F.R.C.P.Ed. ALEX. JAMES, M.D., F.R.C.P.Ed.

(For Diseases of Women.)
J. Halliday Croom, M.D., F.R.C.P.Ed.

The Fee for the First Course of Six months is -	-	£3	5	0	
" Second Course of Six months is	-	2	4	0	
., Perpetual		5	5	0	
,, First Course of Three months is		2	4	0	
,, Second Course of Three months is		1	3	0	

[If for Graduation, University fees—£4, 4s. for Winter, £3, 3s. for Summer—are exigible.]

The Course consists of Lectures on Clinical Medicine, delivered in the West Medical Class-room, by the Physicians alternately,

every Tuesday and Friday of each session, at 12 noon.

On the remaining days of each week (Sunday excepted), Clinical Instruction is carried on in the Wards, and comprises every subject connected with the diagnosis and treatment of disease. On one day in each week the Clinical Clerks of each physician, in turn, are instructed practically in Gynecology by Dr Croom.

In connection with this course, the Clinical Tutor meets the Class in sections for the purpose of giving practical instruction in

Physical Diagnosis. No fee is charged.

The appointments of Resident Physician in the Wards of the Ordinary Physicians are only open to those who have been members of their Clinical Class, and have clerked with one or other of them for six months. These appointments are determined by competitive examination, at the end of each Winter and of each Summer Session.

#### MIDWIFERY AND DISEASES OF WOMEN.

J. Halliday Croom, M.D.Ed., F.R.C.P.E., F.R.C.S.E., Minto House, Physician to, and Clinical Lecturer on Diseases of Women, Royal Infirmary; and Physician to the Royal Maternity Hospital, Edinburgh, &c.

Winter Session—Systematic and Clinical Gynecology, 5 p.m.—Dr Croom conducts a Winter Course of Instruction in Diseases of Women, and ample opportunity is given for seeing and practising the minor Gynecological Operations.

Summer Session—Systematic Midwifery.—The Course of Qualifying Lectures on Midwifery and the Diseases of Women will com-

mence on 5th May, and will embrace,-

1. Systematic Lectures on the Science and Practice of Midwifery daily, at 9 a.m.

2. Systematic Lectures on the Diseases of Women, Tuesdays

and Fridays, at 5 p.m.

3. Tutorial Classes on the Mechanism of Labour and Operative Midwifery, Fridays, at 5 p.m.

4. Clinical Instruction in Gynecology in the Royal Infirmary at 12 noon.

These Lectures qualify for all Boards requiring a three months' Course.

Autumn Session—Clinical Midwifery.—Dr Croom conducts a Clinique at the Royal Maternity Hospital daily, at 4 p.m. Fees, £3, 5s. Second Course, £2, 4s.

# MIDWIFERY, AND DISEASES OF WOMEN AND CHILDREN.

D. Berry Hart, M.D., F.R.C.P.Ed., Surgeons' Hall,
Physician and Lecturer on Clinical Midwifery, Royal Maternity Hospital;
Assistant Physician for Diseases of Women, Royal Infirmary.

During the Summer Session a Course of Lectures is given, and includes (1) Lectures on the Principles and Practice of Midwifery, illustrated by Diagrams, fresh and preserved specimens, the artificial pelvis, complete set of models, illustrating deformities of the pelvis, wax preparations, &c. (2) A complete Course on Obstetric operations with the phantom and preserved Fœtuses. (3) Lectures on Gynecology. (4) Diseases of Infancy. Clinical Midwifery in the Royal Maternity Hospital daily, at suitable hours, February to May.

# MIDWIFERY AND DISEASES OF WOMEN AND CHILDREN.

A. H. F. Barbour, M.A., M.D., B.Sc., F.R.C.P.Ed., New School, Bristo St., Assistant Physician, Gynacological Department of Royal Infirmary; Assistant Physician, Royal Maternity Hospital, &c.; Examiner in Midwifery, University of Edinburgh.

Summer Session, . . 9 a.m.

A Course of Systematic Lectures is given daily, and includes the Anatomy and Physiology, Examination, Diagnosis, and Management, and Pathology of Pregnancy, Labour, and Puerperium. Tutorial Classes for Senior and Junior Students are also held.

Clinical Midwifery.—Members of the class can take out their Cases of Labour at the Maternity Hospital, and will be instructed in the management of them.

Clinical Gynæcology.—The members of this class are arranged in sections so as to attend once a week for three months at the Maternity Hospital or the Cowgate Dispensary. These limited Cliniques give an opportunity of examining a considerable variety of cases of Diseases of Women.

#### MIDWIFERY AND DISEASES OF WOMEN.

R. MILNE MURRAY, M.D., M.B., F.R.C.P.E., F.R.S.E., New School,
Bristo Street,

Assistant Physician, Royal Maternity Hospital.

Winter Session.-The Course consists of-

(a) 100 Systematic Lectures.

(b) About twenty Practical Demonstrations on—1. Anatomy of the pelvis and organs of reproduction; 2. Mechanism of normal

and abnormal labour; 3. Deformities of pelvis; 4. Obstetric operations; 5. Obstetric and Gynæcological instruments.

The Course is illustrated by diagrams, specimens, models, &c.,

and by means of Lantern Demonstrations.

The Systematic Lectures are delivered daily at 10 a.m., and the Tutorial Demonstrations at 5 p.m.

# MIDWIFERY AND DISEASES OF WOMEN AND CHILDREN.

F. W. N. HAULTAIN, M.D.Ed., F.R.C.P.Ed., New School, Bristo Street, Gynæcologist, Deaconess Hospital, Edinburgh.

Winter Session, 10 a.m.

Course of 100 Lectures, with Tutorial or other Demonstrations, qualifying for graduation at the University of Edinburgh, for the Triple Qualification, and for other qualifying Boards.

#### MIDWIFERY AND DISEASES OF WOMEN.

J. Haig Ferguson, M.D.Edin., F.R.C.P.E., M.R.C.S.Eng., New School, Bristo Street.

Summer Session, 11 a.m.

The Course consists of-

I. Systematic Lecture on Midwifery daily, at 11 a.m.

II. Systematic Lectures on Diseases of Women.

III. Weekly Practical Demonstrations on Gynæcological and Obstetrical operations and appliances.

IV. Tutorial Instruction, in connection with the work of the class, at convenient hours.

Fee £3, 5s.

Text-books-Playfair's, Lusk's or Parvier's "Midwifery," Hart and Barbour's or MacNaughton Jones' "Diseases of Women."

## MEDICAL JURISPRUDENCE AND PUBLIC HEALTH.

Sir Henry D. Littlejohn, M.D., LL.D.Edin., F.R.C.S.Ed., Surgeons' Hall,

Medical Officer of Health and Surgeon of Police for City of Edinburgh.

Winter Session, 3 p.m. Summer, 10 a.m.

Full Course of Lectures and Instruction, qualifying for graduation in Medicine and Science at the University of Edinburgh, and the Medical and Public Health Qualifications of other Universities and Colleges.

The Course embraces the following subjects:—(1) Medical Evidence; (2) The Signs and Modes of Death; (3) Post-mortem appearances and Examinations; (4) Identity; (5) Deaths from

Lightning, Cold, Heat, Starvation, Burning, Strangulation, &c.; (6) Injuries from other external violence in the living and dead; (7) Questions relating to Sexual Functions; (8) Bodily soundness and feigned diseases; (9) Poisons; (10) Life Assurance; (11) Insanity.

The Public Health Course includes the subjects of—(1) Water; (2) Air; (3) Foods; (4) Disposal of Refuse; (5) Contagious Dis-

eases and their prevention; (6) Sanitary Law.

Arrangements may be made for practical instruction in out-door Sanitary Work as required for the Public Health Diploma.

#### CLINICAL AND SYSTEMATIC OPHTHALMOLOGY.

George Mackay, M.D., C.M.Ed., F.R.C.S.Ed., Surgeons' Hall, Ophthalmic Surgeon, Royal Infirmary and Deaconess Hospital; Surgeon, Edinburgh Eye Dispensary.

Winter Session.—Course of Lectures at Surgeons' Hall at 9 a.m., with Clinical Instruction at the Edinburgh Royal Infirmary and the Edinburgh Eye Dispensary. Fee, £2, 2s.

This Course qualifies for the University, Triple Qualification,

Royal College of Surgeons of Edinburgh, and other Boards.

Summer Session.—A Course of Lectures will be given in Summer daily (except Saturday), at 9 a.m.

#### PRACTICAL OPHTHALMOSCOPY.

This Course is given at the Eye Dispensary, from time to time, to suit the convenience of senior students and graduates. The class will meet daily at 5.30 p.m. (Saturday excepted), for three weeks. Instruction in the Optical Construction of the Ophthalmoscope; the Refraction of the Eye and its anomalies; their Diagnosis and Correction by means of the Ophthalmoscope; the Examination of the Media and Fundus of the Eye in health and in disease.

Only a limited number of students are received. Fee, £2, 2s. Application for places should be made to the Lecturer, at 20 Drum-

sheugh Gardens.

#### DISEASES OF THE EYE.

WILLIAM GEORGE SYM, M.D., F.R.C.S.Ed., New School, Bristo Street.

Winter Session, 9 a.m. Summer Session, 8 a.m.

The Class includes Systematic Lectures on the Diseases and Injuries of the Eye, the Medical Relations of Eye Symptoms, and the Refraction of the Eye, as well as Clinical Demonstrations both of External and Ophthalmoscopic Diseases, along with Clinical Instruction at the Eye, Ear, and Throat Infirmary, 6 Cambridge Street, daily at 1 p.m., or at Leith Hospital on Tuesdays and Fridays at 5 p.m.

#### INSANITY.

J. BATTY TUKE, M.D.Edin., F.R.C.P., L.R.C.S.E.,

AND JOHN MACPHERSON, M.B., C.M.Edin., F.R.C.P.E., Medical Superintendent, Stirling District Asylum,

Will deliver a Course of Lectures on Insanity at Surgeons' Hall, in

Summer, on Tuesdays and Fridays, at 3 p.m.

Clinical Instruction at the Stirling District Asylum, Larbert, containing 500 patients, on Wednesday afternoon, or on any other day that may suit the majority of the Class. Fee for the Course, £2, 2s. (inclusive of railway fares to Larbert).

The introductory Lecture will be delivered at Surgeons' Hall, on

5th May 1897, and the Cliniques will then be arranged.

This Course is recognised by the University and other Qualifying Boards.

#### VACCINATION,

With special reference to Public Vaccination in England. WILLIAM HUSBAND, M.A., M.D., F.R.C.S.Ed., Royal Dispensary.

WINTER AND SUMMER.

Wednesday and Saturday, 12 noon.

Certificate qualifies for all Examining Boards.

Dr Husband is also authorised by the Local Government Board to grant certificates in special cases after examination simply.

## VACCINATION,

With special reference to Public Vaccination in England. J. B. Buist, M.D., C.M., F.R.C.P.Ed..

Winter and Summer Sessions.

Western Dispensary, Thursdays, 3 p.m. Cowgate Dispensary, . Mondays, 4 p.m.

#### VACCINATION.

With special reference to Public Vaccination under the Local Government Board for Scotland.

Francis Cadell, M.B., C.M., F.R.C.S.Ed., 22 Ainslie Place.

A Course qualifying for the various Medical Boards, and for the office of Public Vaccinator, will be given at the New Town Dispensary, 17 East Thistle Street, during the Winter and Summer Sessions, on Tuesday at 12 o'clock noon. Fee, £1, 1s.

#### NATURAL HISTORY.

J. ARTHUR THOMSON, M.A., F.R.S.E., New School, Bristo Street.

Winter, 12 noon. Summer, 1 p.m.

A Course of Fifty Lectures on Zoology, both in the Winter and Summer Sessions. A number of Practical Classes, at suitable hours, for the dissection and study of typical forms of Animal Life.

A Laboratory Course for more advanced Students is also open.

Text-books suggested—Thomson's "Outlines of Zoology" 2d Edition, Edinburgh, 1894; Lloyd Morgan's "Animal Biology"; Milnes Marshall's "Practical Zoology"; Jeffrey Bell's "Comparative Anatomy and Physiology." The Student is also recommended to use Professor Cossar Ewart's "Syllabus of the Mammalia."

Mr Thomson also Lectures on Agricultural Zoology at Royal (Dick) Veterinary College, and at Heriot-Watt College, in connection with the School of Rural Economy.

Mr Thomson has also Morning Classes of Botany and Zoology at the Veterinary College, and Evening Classes at the Heriot-Watt College.

#### BOTANY AND PRACTICAL BOTANY.

A. N. M'ALPINE, B.Sc., Minto House.

Summer Session, 9 a.m. Practical, at 10 a.m.

The Courses consist of Lectures and Practical Instruction, and include,—

- Study of Typical Plants.
   External Morphology.
- 3. Physiology and Histology.
- 4. Classification.
- 5. An Afternoon Tutorial Class for Natural Orders, &c.

Excursions are made for practical study in the country.

The Courses qualify for the University of Edinburgh, Triple Qualification, and other Boards.

Fees:—Lectures, £4, 4s. for a First Course, and £3, 3s. for a Second Course; Practical, £2, 2s.

Text-books—Prank and Vine's "Text-book of Botany"; Bower's "Practical Botany for Beginners"; M'Alpine's "Note-book of General Botany," Part I.

#### BOTANY.

ROBERT TURNBULL, B.Sc., New School, Bristo Street.
Winter Session.

A Course of 50 Lectures, 10 Tutorials and 5 Field Meetings, will begin on Tuesday, 13th October, at 4 p.m., and end at Christ-

mas. This Course qualifies for Graduation in Medicine, Science, and Arts at Edinburgh University, and in Medicine at Glasgow University.

Practical Classes from 10 a.m. till 12 noon, and from 1 p.m. till

3 p.m., will be held during the same period.

Practical Classes will also be held at the same hours, beginning

on 12th January 1897.

Each Practical Class consists of 25 meetings of two hours each. Fee for Course of Lectures, £4, 4s. Fee for Practical Class, £2, 2s.

#### Summer Session.

A Course of 50 Lectures, 10 Tutorials and 5 Field Meetings,

will begin on 4th May at 10 a.m.

This Course qualifies for Graduation in Medicine, Science, and Arts at Edinburgh University, and in Medicine at Glasgow University.

Practical Classes from 11 a.m. till 1 p.m., and from 2 p.m. till

4 p.m., meet during the same period.

#### DISEASES OF CHILDREN.

Joseph Bell, M.D.Ed., F.R.C.S.E., F.R.S.E., Surgeon to the Royal Hospital for Sick Children,

THOMAS M. BURN-MURDOCH, M.B., C.M.Ed., Royal Edinburgh Hospital for Sick Children, 9 Sciennes Road and Sylvan Place.

Mr Bell meets his class at 11 a.m., or hour to be arranged, on

Mondays, in Ward II.

Mr Burn-Murdoch's class is on Thursdays, at 11 a.m., in Ward I. Cliniques on Surgical and Medical cases peculiar to Children are then held in the Wards and Out-patient department. Students are also given patients to examine clinically, and report shortly upon them. The Course is made as practical as possible, and from the number of children treated daily in the Hospital excellent opportunities are afforded to Students of becoming thoroughly acquainted with the Medical and Surgical diseases of children and their treatment.

Classes for Women will be held at hours to be arranged.

# DISEASES OF INFANCY AND CHILDHOOD.

John Thomson, M.D., C.M.Ed., F.R.C.P.Ed., Extra-Physician to the Royal Hospital for Sick Children; and Physician for Diseases of Children to the New Town Dispensary.

Dr Thomson will give a short Course of Lectures, at the New School, Bristo Street, on the above subject during the Winter Session. It will consist of Lectures or Demonstrations twice a week at 4 o'clock on the Clinical Examination and Treatment of Children, on Infant Feeding, Diet-disorders, &c.

The Course is intended to be supplementary to the Clinical Courses held at the Sick Children's Hospital. Fee, £1, 1s.

## DISEASES OF INFANCY AND CHILDHOOD.

J. W. Ballantyne, M.D., C.M.Ed., F.R.C.P.E., F.R.S.E., Minto House, Physician for Diseases of Children, Cowgats Dispensary.

Winter Session.—During October, November, and December, Lectures are given on Mondays, Tuesdays, Thursdays, and Fridays, at 3 p.m., in Minto House; and on Wednesdays there is Clinical Instruction at the Cowgate Dispensary at 3.15 p.m.

The Course includes the following subjects:—(1) Anatomy of Infancy and Childhood. (2) Physiology of Infancy and Childhood. (3) Diagnosis of Diseases of Infants and Children. (4) Hygiene of Infancy and Childhood. (5) Therapeutics of Infancy and Childhood. (6) Intra-uterine Diseases of the Fœtus. (7) Diseases of the New-born Infant. (8) Constitutional Diseases of Infancy and Childhood. (9) The Fevers. (10) Diseases of the Digestive, Respiratory, and other Systems.

Summer Session.—In May, June, and July, Lectures as in Winter, at 3 p.m.; with Clinical Instruction at the Cowgate Dispensary on Wednesdays, at 3.15 p.m. Fee, £2, 2s.

Text-books.—" Introduction to the Diseases of Infancy" (Ballantyne); "Guide to Diseases of Children" (Goodhart); and "Treatment of Diseases in Children" (Angel Money); "Diseases of the Fœtus," Vols. I. and II. (Ballantyne).

#### DISEASES OF CHILDREN.

G. H. MELVILLE DUNLOP, M.D., C.M., F.R.C.P.E., Oddfellows' Hall.

Dr Dunlop will give a course of Lectures weekly on Mondays and Thursdays at 3 p.m. in Winter, and 10 a.m. in Summer, with Clinical Instruction at Sick Children's Hospital Waiting Room, during Winter and Summer Sessions, at 11 a.m.

# DISEASES OF THE EAR, NOSE, AND THROAT.

J. J. Kirk Duncanson, M.D., C.M.Edin., F.R.C.P.E., F.R.S.E., etc., 6 Cambridge Street,
Senior Surgeon of Eye, Ear, and Throat Hospital.

The Lectures (two Courses) are delivered during the Winter and Summer Sessions, on Tuesdays and Fridays, at 9 a.m. Clinical Instruction at the Ear Dispensary, 6 Cambridge Street,

Lothian Road, on Mondays, Thursdays, and Saturdays, at 12

Besides the Class Prizes, one prize is given for the best series of Dissections illustrative of the Anatomy of the Ear, Nose, or Throat. This competition is open to graduates and students of medicine of Edinburgh. The Dissections to become the property of the Lecturer.

# DISEASES OF THE EAR, NOSE, AND THROAT.

Peter M'Bride, M.D., C.M.Edin., F.R.C.P.E., F.R.S.E., Aural Surgeon and Laryngologist, Royal Infirmary, Edinburgh.

Clinical Instruction at the Royal Infirmary, on Tuesdays and Fridays, during Winter and Summer Sessions, from 11 to 12 noon.

From the large number of patients attending the Infirmary, ample opportunity is given to students of acquiring a thorough practical knowledge of the diseases of these organs, and the importance of such a knowledge has been recognised by the fact that a number of Qualifying Boards have made these special branches of the Subjects of Medicine and Surgery part of their Examination requirements.

At present no fee is charged.

Text-book recommended for consultation while students are attending the Courses:—"Diseases of Throat, Nose, and Ear" (2d ed., 1894), by the Lecturer.

#### DISEASES OF THE SKIN.

W. Allan Jamieson, M.D., C.M.Ed., F.R.C.P.Ed., Royal Infirmary, Physician for Diseases of the Skin, Royal Infirmary, Edinburgh.

Cliniques are held in the West Medical Theatre, on Wednesdays and Saturdays, during the Winter and Summer Sessions.

On Wednesdays the Cliniques are conducted by Dr Norman

Walker, the Assistant-Physician, from 11 a.m. to 12 noon.

On Saturdays, by Dr Allan Jamieson, from 11 a.m. to 12 noon. The greater portion of the time is spent in demonstrating the cases, explaining the difficulties in diagnosis, and in directing the appropriate treatment, but opportunity is taken, as far as possible, to illustrate the Demonstrations by the exhibition of Plates and Microscopic Specimens. The average number of new cases has for some years exceeded 1000 annually.

Ward Visits are made on Tuesdays and Fridays, in the Skin Wards (Nos. 37 and 38), at 12 noon. To these a limited number

of Senior Students are admitted on application.

Text-book-"Manual of Diseases of the Skin" (4th edition), by the Lecturer.

#### DISEASES OF THE SKIN.

STEWART STIRLING, M.D., F.R.C.S.Ed., Surgeons' Hall and Skin Dispensary.

Course of Lectures at Surgeons' Hall, on Tuesdays and Fridays, at 4 p.m., with Clinical Instruction at the Edinburgh Skin Dispensary, 6 Drummond Street, on Mondays, Thursdays, and Saturdays from 11 a.m. to 12 noon, where the student has ample opportunity of personally examining the patients.

The Course shall include:—Historical Sketch of Dermatology, Anatomy and Physiology of the Skin, Symtomatology, Etiology, Pathology, Diagnosis, Prognosis, and Classification; also Special Diseases, including Syphilis, Drug Eruptions, and other Cutaneous manifestations and their treatment.

The Lectures are illustrated by Original Drawings, Plates, Microscopic Specimens, &c.

Fee for complete Course, £2, 2s.; for Dispensary separately, £1, 1s.

#### DISEASES OF THE CHEST.

R. W. Phillip, M.A., M.D., F.R.C.P.Ed.,

Physician to the Victoria Hospital for Consumption and Diseases of the Chest.

A Clinical Course is given on Mondays from 4 to 5.30 p.m., in the Victoria Hospital Out-Patient Department, 26 Lauriston Place. Each Class is *limited in number*. The work is practical, with special reference to the methods of Diagnosis in Chest Disease.

Applicants for places are requested to hand their names to Dr Philip in advance, as the list is usually occupied before the date of each Course. Fee, £2, 2s.

# MEDICAL ELECTRICITY,

INCLUDING ELECTRO-PHYSICS, DIAGNOSIS, AND THERAPEUTICS.

DAWSON TURNER, B.A., M.D., F.R.C.P.E., M.R.C.P.Lond., Surgeons' Hall.

Course of Lectures and Demonstrations commences on 10th May, at 3 p.m., and includes Electro-Physics, Electro-Diagnosis, and Electro-Therapeutics. Fee, £2, 2s.

Text-books-Dawson Turner's "Medical Electricity."

### DISEASES OF THE TROPICS AND CLIMATOLOGY.

R. W. Felkin, M.D. Marburg, L.R.C.P. & L.R.C.S.Edin., F.R.S.E, F.R.G.S., New School, Bristo Street.

During the Summer and Winter Sessions Lectures are given on the above subjects on Mondays, Wednesdays, and Fridays, at 5 p.m. or other convenient hour. The Course, which consists of over Thirty Lectures, is especially intended for Students proceeding to the Tropics either to take Colonial appointments or to act as Medical Missionaries, or for those who intend to enter the Army or Navy or the Mercantile Marine.

Lady Medical Students may attend this Class. Written Examinations are held and prizes given.

The Lectures are illustrated by Diagrams, Maps, Microscopical Preparations, Instruments, &c.

# PRACTICAL MIDWIFERY AND CLINICAL GYNECOLOGY.

PETER YOUNG, M.D.Edin., F.R.C.P.E., L.R.C.S.E., Royal Dispensary.

Winter and Summer on Fridays, at 1 p.m.

Instruction is given to Students at the Dispensary during the

whole year.

Students have the opportunity of attending Midwifery cases at the homes of the patients, and when necessary are assisted and directed in their management.

# EDINBURGH SCHOOL OF MEDICINE FOR WOMEN.

Specially Recognised as Qualifying for the University of Edinburgh.

PRESIDENT-H.R.H. The Duchess of Fife.

The Marchioness of Tweeddale. VICE-PRESIDENTS The Lady Helen Munro Ferguson. The Lady Reay.

#### EXECUTIVE COMMITTEE.

+Dr G. W. Balfour, LL.D., F.R.C.P.Ed., Chairman.

Mrs George A. Berry.

Mrs Mears, L.K.Q.C.P.I.

†Miss Ursula Du Pre.

Dr Heron Watson, LL.D., F.R.C.S.Ed.

Miss C. H. Eliott-Lockhart. W. White-Millar, Esq.

Mrs Alexander Russell.

Dr Agnes M'Laren.

Hon. Treasurer-+Dr Margaret G. Todd.

Dean of the School-+Dr Sophia Jex-Blake, Bruntsfield Lodge, Whitehouse Loan, Edinburgh.

Secretary-Miss Cross, School of Medicine, Surgeon Square.

#### LECTURERS OF THE SCHOOL.

AnatomyJohn Hardie, M.B., C.M., F.R.C.S.Ed.
ChemistryAndrew P. Aitken, M.A., D.Sc.
PhysiologyD. Noël Paton, M.D., C.M., B.Sc., F.R.C.P.Ed.
Practice of Medicine, J. Graham Brown, M.D., C.M., F.R.C.P.Ed.
Practice of SurgeryJ. Shaw M'Laren, M.B., C.M., F.R.C.S.Ed.
Materia MedicaRalph Stockman, M.D., C.M., F.R.C.P.Ed.
PathologyRobert F. C. Leith, M.B., C.M., B.Sc.
Forensic MedicineSir Henry D. Littlejohn, M.D., LL.D., F.R.C.S.Ed.
Midwifery and Sophia Jex-Blake, M.D., M. & L.M., K.Q.C.P.I.
Diseases of Women. R. Milne Murray, M.B., F.R.C.P.Ed.
Mental DiseasesThomas S. Clouston, M.D., F.R.C.P.Ed.
OphthalmologyGeorge A. Berry, M.B., C.M., F.R.C.S.Ed.
FeversClaude B. Ker, M.D., C.M.
Vaccination

<sup>†</sup> Trustees of the School.

Histology .......Jessie M. M'Gregor, L.R.C.P. & S.Ed., &c.
Zoology ......J. Arthur Thomson, M.A., F.R.S.Ed.

Botany ......Robert Turnbull, B.Sc.

Demonstrator of Anatomy-Margaret G. C. Brodie.

#### LECTURES AT THE ROYAL INFIRMARY.

Clinical Medicine.

Byrom Bramwell, M.D., F.R.C.P.Ed. (Wards 27 and 5a.)

Clinical Surgery.

Joseph M. Cotterill, M.B., C.M., F.R.C.S.Ed. (Wards 5 and 5a.)

Other Clinical Teachers.

George A. Berry, M.B., C.M. (Eye Wards 2 and 3.)
Halliday Croom, M.D., C.M. (Gynæcological Ward 28.)
C. W. Cathcart, M.B., C.M., F.R.C.S.Eng. (Female Lock Wards 20 and 21.)
Peter M'Bride, M.D., C.M. (Ear and Throat Wards 37 and 38.)
W. Allan Jamieson, M.D., F.R.C.P.Ed. (Skin Wards 37 and 38.)
Alexander Bruce, M.D., C.M., F.R.C.P.Ed. (Delirium Ward 6.)

Robert F. C. Leith, M.B., C.M., B.Sc. Post-Morten Examinations. Robert Muir, M.D., C.M.

# General Information for Students beginning their Studies after January 1st 1892.

Every Student desiring to enter the medical profession must decide, in the first instance, on the diploma or degree that she desires to obtain, as the rules and requirements differ in each case, and much time may be lost if she does not from the first comply with the necessary regulations.

The Diplomas admitting to the medical profession are of two kinds:—

- (1) Qualifications to practise, granted by Royal Colleges of Physicians and Surgeons.
- (2) Medical degrees, granted by Universities.

All registered practitioners are legally on an equality.

In every case a Student, before entering on medical study, must pass a Preliminary Examination in Arts, which, in the case of those aspiring to a University degree, must be either a Degree in Arts or the Matriculation Examination of the University in question.

Students who desire a qualification from the Royal Colleges to

practise may pass any one of the Preliminary Examinations recognised by the General Medical Council. As soon as such examination is passed, the Student must be registered by the Medical Registrar in London, Edinburgh, or Dublin.

# Admission to the School.

No Students will be admitted to the School under the age of eighteen, and in every case a Form of Application for admission must be obtained from the Secretary and duly filled up and returned. The decision of the Executive Committee respecting the admission, re-admission, or dismissal of a Student, will be final.

It is desirable that applications should be sent in at least a month before the beginning of each Session—i.e., not later than April 1st or September 15th, though in exceptional cases later applications may be granted.

The Committee always reserve to themselves the right of judging whether a Student's progress and general conduct is satisfactory to them, and of declining to re-admit her for subsequent Sessions if they deem it expedient to do so; and in such case they will intimate their decision within fourteen days after the close of the Term. Students are similarly at liberty to leave the School if they desire to do so, and are required to give notice to that effect within fourteen days after the close of Term.

#### MEDICAL CLASSES.

The distinguishing feature of this School is that medical instruction is given to women in separate classes, which form an integral part of the Extra-mural School of Edinburgh, and provide the whole curriculum required for graduation at the University of Edinburgh; though the School is distinct in its internal organisation, being established and regulated by its own Executive Committee. A full curriculum of instruction in all subjects is provided, and though the course of Physics is not as yet given within the School, arrangements have been made for this class to be taken in the University, and the fee for it is included in the fees charged for the complete curriculum.

Anatomy and Practical Anatomy, Chemistry and Practical Chemistry, will be given every year at the School, and Physiology at Surgeons' Hall; as also courses of Clinical Medicine and Surgery at the Hospital; and the other courses of lectures will, as a rule, be given in biennial rotation. The order proposed will be found appended, but it is possible that circumstances may cause a modification of this arrangement. It is intended in any case so to arrange the classes that junior students can join at any time, and that the curriculum of lectures can be completed in five years, if the Student is able to master each subject after attending a single course. This is the time of study now required by the Medical Council.

The Executive Committee are in all cases exceedingly anxious that the work done in this School should be as thorough as possible, and that it should be accomplished without injury to the health of the Students. They therefore desire that the Students should not make it a primary object to hurry through their course of education, as in a large number of cases it is much better to extend the time of study over six years.

Attendance at Classes and Examinations.—All students are required to attend at least 75 per cent of the lectures in each course, and, except in cases of special exemption, attendance will not be certified unless this rule is complied with. If any student is absent on two consecutive days, she is expected to send a note of explanation to the Secretary.

The University regulations require that students shall attend the class examinations in each course that forms part of the regular curriculum, and any student who absents herself will forfeit her certificate of attendance. It is not desired, however, that any severe preparation should be made for these examinations, which are intended simply as a test of intelligent attention to the course of lectures.

Certificates of Attendance.—As the School is now, as regards women, equivalent to part of the University, certificates of attendance will be granted to all registered students of medicine who have attended the classes as required by the school regulations.

Medals and Prizes.—The Executive Committee award a medal in each class to the student who has gained the highest marks in the competitive class examinations. No student can compete more than once in the same subject, except where two courses are comprised in the curriculum, e.g., in Practical Anatomy. Any student who announces her choice beforehand can have the option of receiving a prize of the same value (books or instruments) instead of a medal.

#### HOSPITAL.

Full Courses of Clinical Instruction are now given at the Royal Infirmary, where three wards are set apart for the instruction of women students. Clinical lectures are given in medicine and surgery, as well as bedside instruction; and special teaching is also given in the Gynæcological, Eye, Throat, and Ear, Skin, and Lock wards, on days of which due notice is given in the Infirmary Syllabus. Post-mortem Examinations will also be performed before the students by the Infirmary pathologists.

Clinical clerks and dressers will be appointed from among the students from time to time.

Students must attend courses of at least nine months of Clinical Medicine and of Clinical Surgery, respectively, and must attend Hospital Practice during three Winter and two Summer Sessions, making twenty-four months in all, irrespective of vacations.

University students are required to take thirty-six months of Hospital.

Diseases of Women and Children.—Senior students can attend the Dispensary and Hospital practice (twice a week) of the Edinburgh Hospital for Women and Children, 6 Grove Street, for three months on payment of a fee of £2, 2s.

Sick Children's Hospital.—The senior students of the School are admitted to clinical instruction at the Sick Children's Hospital; and also to the out-patient department in Lauriston Lane, under the instruction of Dr Cumming and Dr Stiles, at 11 A.M. on Wednesday and Saturday.

Practical Pharmacy.—A course of Practical Pharmacy can be taken at the Edinburgh Hospital for Women and Children. The class will meet twice a week for three months, and the fee is £2, 2s.

Vaccination.—Instruction in Vaccination will be given by Dr Husband, Superintendent of the Central Vaccine Institute for Scotland, at the Royal Dispensary, Richmond Street. The course extends over six weeks. Fee £1, 1s.

Dentistry.—Ladies who desire to study this branch are admitted on the usual terms at the Edinburgh Dental Hospital and School. The medical courses required for the Dental Curriculum can be taken at Surgeon Square, and the Executive Committee have sanctioned a reduced fee of £35 for dental students for these classes.

#### FEES.

As clinical instruction is now given at the Royal Infirmary, the fees may henceforth be paid separately by the students, with the following exceptions:—(1) Any student by a single payment of £100 at the beginning of her course can defray all fees for a qualifying course at both School and Hospital. (2) Those students who have already taken any part of their Hospital Course, and have paid one or more instalments as hitherto charged for both School and Hospital, will be allowed to complete their payments on the same basis, and will be entitled to a qualifying course of Hospital attendance and Clinical Lectures. Should they desire more than this, any extra fees must be paid by themselves.

School and Hospital Fees .- As the classes will henceforth be given at this school in accordance with the requirements of the University of Edinburgh, a somewhat extended curriculum is necessary, and somewhat higher fees must be charged to students beginning in and after October 1894, viz. :- £100 in one sum, or £105 in instalments, i.e., £30 for the first year; £30 for the second year; £25 for the third year; £20 for the fourth year; the fifth year being free. These fees cover one each of the following courses, viz. :- Zoology, Botany, Physics, Anatomy, Histology, Chemistry, Practical Chemistry, Physiology, Practical Physiology, Practice of Medicine, Practice of Surgery, Operative Surgery, Materia Medica, Pathology, Practical Pathology, Midwifery, Forensic Medicine, Fevers, Insanity, Ophthalmology; and two courses of Practical Anatomy. Qualifying courses of Clinical Lectures, and of Hospital attendance are also included. An additional payment of £5, paid with the second or third year's fees, will entitle the student to a "Perpetual Ticket," admitting to an additional course on any subject taught in the School itself, but this will not henceforth include classes given outside. For a single class, taken a second time, the fee will be £3, 3s. In no case will any fees be returned.

For students who desire to pay the School fees separately, the yearly instalments will be £25, £25, £20, and £15.

Special optional classes will be organised from time to time, especially for the senior students, at an additional fee, of which

due notice will be given. All students entering after 1891 are required by the Medical Council to attend courses on Fevers, Insanity, and Ophthalmology, and these are included in the fees now charged. For those who began study previously these courses are optional; and they can be attended at a fee of £2, 2s. each, or one payment of £5 in advance for all three.

It must be clearly understood that each year's fees cover the instruction in that year only, and give no claim for instruction in any subsequent Session if the Executive Committee decide against the re-admission of any student.

Those students who began to study on a lower scale of fees will complete their curriculum on that scale, unless they wish to take the University degree, in which case they must add £5 to their next payment (in addition to £5 for Perpetual Ticket) to cover the extended curriculum.

Students may also, by special permission of the Executive Committee, be admitted to single courses of lectures on payment of the University fee of £4, 4s. for each class, and also a matriculation fee of £1, 1s. at the beginning of the Winter Session, or of 10s. 6d. for the Summer Session. Classes attended a second time at this School will be charged £3, 3s. as in the University. Perpetual Tickets will not be granted to students who take their classes in this manner, and the expense will be somewhat greater than when payment is made by instalments.

Hospital Fees.—In future the Hospital Fees will be the same as those charged to male students at the Royal Infirmary, viz.:—Perpetual Ticket, in one payment, £12; Annual Ticket, £6, 6s.; Six Months, £4, 4s. Separate Payments amounting to £12, 12s. entitle the student to a Perpetual Ticket, on production of previous Season Tickets.

The Fees for Clinical Medicine and Clinical Surgery will be £3, 5s. for each winter course, and £2, 4s. for each summer course.

Science Classes.—The Science Classes given in this School, viz., Botany, Chemistry, and Zoology, are accepted by the University authorities as qualifying for graduation in Arts. The fees will be the same as in the University, and, in the case of non-medical students, a matriculation fee will not be charged.

Expenses of Medical Education.—£1 is charged by the Educational Institute of Scotland, and 10s. 6d. by the University, for the

Preliminary Examination in Arts; and fees amounting to £23, 2s. must be paid to the University of Edinburgh, or £30 to the Royal Colleges of Physicians and Surgeons for Professional Examinations.

University Students also pay a yearly matriculation fee of £1, 1s. to the University.

£1 is charged each session for material, &c., in the class of Practical Anatomy; and additional payments have to be made also outside the School for instruction in the following branches, viz., Practical Midwifery, Practical Pharmacy, Dispensary Practice, and Vaccination. It is probable that the total expense for these extra subjects will not exceed £12 or £14. The whole amount of a student's fees for education and examination may be therefore estimated at about £160. The cost of books, instruments, &c., will vary from £10 to £30 more.

Ladies who have taken part of their course at another recognised school can, by special permission, join the classes and attend the Hospital and Clinical lectures for one year, on payment of the First Year's Fees, School and Hospital.

#### FIVE YEARS' COURSE OF STUDY.

Five years of study are now required from all Students beginning after 1891. The first subjects required are Chemistry, Physics, and Biology, and for the Triple Qualification these may be taken either in a Medical School or in any place where the requisite instruction can be obtained. These subjects usually occupy one year, or at least one Winter Session; and the remaining time of study must be taken in a recognised School of Medicine, and in a general Hospital of not less than eighty beds. Those students who take out all their instruction in a Medical School will be wise to study Botany and Zoology during the Summer Session, with Practical Chemistry; and to devote the first Winter Session to Systematic Chemistry and Physics, with some elementary Anatomy. If this is done, the first Examinations in Chemistry, Physics, and Biology (which need not all be taken at once), can usually be passed before the end of the first year of study, and attention can then be directed entirely to the more strictly medical subjects. All the lectures required should be taken as far as possible in the next three years, so as to leave the fifth year free for clinical and practical work.

Until the School is able to provide apparatus for efficient instruction in Physics, its students will be sent to the Class of Natural Philosophy given by Professor Tait in the University.

#### SCHOLARSHIPS.

- 1. Entrance Scholarships.—The Executive Committee hope every year to be able to offer two or three Entrance Scholarships of £20, to be awarded by competition at the April, July, and October Examinations in Arts. Only those who need such assistance in order to pursue their studies are eligible as candidates. Missionary Students, or others receiving aid from any public fund, are not eligible. Application should be made to the Dean of the School before March 15th, June 15th, or September 15th.
- 2. Arthur Scholarship.—This Scholarship, founded by Mrs Arthur, of Barshaw, is of the value of £50. It is awarded to the most successful competitor among the first year's students who need assistance to pursue their studies, and who have been accepted as candidates at the beginning of the term. It was awarded for the first time in 1889, and subsequently in 1891, 1893, and 1896. It will be offered again for competition in 1896-97.
- 3. Waldie Griffith Scholarship.—This Scholarship, founded by the Dowager Lady Waldie Griffith, is of the value of about £30. It will be awarded every alternate year on the same principle as the Arthur Scholarship. It was awarded for the first time in March 1896, and will be offered again in 1897-98.
- 4. The Cropper Scholarship, value about £50 a year, has been founded by Mr James Cropper, for the assistance of Hindu ladies who may desire to pursue or complete their medical studies in this country. It is usually tenable for two years, and was awarded for the first time in October 1892, and again in April 1895. It will probably be awarded again in 1896-97.
- 5. George Heriot Bursaries.—Two Bursaries of £30 each, tenable for three years, are offered annually for competition, and are open to students intending to take the medical degrees of the University of Edinburgh, and matriculating there for the first time in October. Forms of application can be obtained from the Treasurer of the Heriot Trust, 20 York Place, Edinburgh.
- 6. Medical Mission Scholarships.—Those who desire eventually to work as Medical Missionaries may if necessary apply to the

Medical Missionary Committee of the School, through the Dean, and can also frequently obtain help from the Societies connected with religious denominations, among which are the following:—

- (a) Society for Promoting Christian Knowledge (Episcopalian), Northumberland Avenue, London, W. C. This Society is willing to give Scholarships not exceeding £75 a year in value, for four years, to Episcopalian students who desire to qualify themselves as Medical Missionaries.
- (b) Zenana Bible and Medical Mission (Non-sectarian), 2 Adelphi Terrace, London. Edinburgh Sec., Miss Paton, 122 George Street.
- (c) Ladies Association of the Church of Scotland. Convener, Mrs Allan, 4 Hillside Crescent, Edinburgh.
- (d) Edinburgh Ladies' Zenana Committee (United Presbyterian). Hon. Sec., Mrs Duncan M'Laren, St Oswald's, Edinburgh.
- (e) Ladies' Society for Female Education in India, &c. (Free Church of Scotland.) Apply to Rev. W. Stevenson, Free Church Offices, Edinburgh.

#### PROFESSIONAL EXAMINATIONS.

The following Examining Boards have now thrown open their examinations to women, and grant them the ordinary diplomas on the usual conditions:—

- (a) The Conjoint Board of the Royal Colleges of Surgeons and of Physicians of Edinburgh, and the Faculty of Physicians and Surgeons of Glasgow.
- (b) { The Royal College of Physicians in Ireland. The Royal College of Surgeons in Ireland.
- (c) The Society of Apothecaries, London.

The above examinations vary in details, and any student desiring to present herself to any of these Boards must obtain the Regulations from the authorities in question. Generally speaking, however, the classes required for any one of these qualifications can be taken in the course of five years, which is the minimum period of study now permitted.

Degrees in Medicine are granted to women by the following Universities in this country, viz. :—

- (d) The University of Edinburgh.
- (e) The University of Glasgow.

- (f) The University of St Andrews.
- (g) The University of Aberdeen.
- (h) The University of London.
- (i) The University of Durham.
- (j) The Royal University of Ireland.

Students who desire to take one of these degrees must obtain full information as to the regulations in each case, and must, in the first place, pass the Matriculation Examination of the University which they select. A student aspiring to a medical degree should start with an unusually good general education, and be prepared to spend at least six years in hard study, with a proportionately increased financial expenditure. The number of subjects to be studied is greater than for the other Boards, and the time of study more prolonged, especially in the case of the University of London.

#### EXAMINATION FEES.

The cost of obtaining the various diplomas varies considerably, and is of course increased by additional fees in case of failure at any of the examinations. The usual minimum cost is, however, as follows:—

University of London (M.B., B.S.),	£15	0	0
Royal University of Ireland (M.B., Ch.B., B.A.O.),	15	0	0
University of Edinburgh (M.B., Ch.B.),	23	2	0
University of Glasgow (M.B., Ch.B.),	23	2	0
University of St Andrews (M.B., C.M.),	21	0	0
University of Aberdeen (M.B., Ch.B.),	23	2	0
University of Durham (M.B., B.S.),	30	0	0
Scottish Colleges (Triple Qualification),	30	-0	0
Irish College of Surgeons (Licence in Surgery), .	)		
Irish College of Physicians (Licences in Medicine and	42	0	0
Midwifery),	)		
Society of Apothecaries, London (L.S.A.),	10	10	0

#### EXAMINATIONS AND DIPLOMAS.

1. Graduation at the University of Edinburgh.—The University Court of Edinburgh have now, by virtue of powers conferred by the recent ordinances, recognised the staff of this School as lecturers specially appointed by the University for the instruction of Women in Medicine. The School has thus

become an extra-mural section of the University of Edinburgh, and the "two years' residence" required for graduation at that University can, in the case of students partly educated elsewhere, be kept at this School, the students paying the ordinary yearly matriculation fee, and presenting themselves for the usual professional examinations at the University for the medical degrees. The Calendar of the University can be consulted at the School, or obtained from Messrs Thin, South Bridge, Edinburgh, or any bookseller, price 3s.

2. Graduation at the University of St Andrews.—Arrangements have now been made for the instruction of women at St Andrews University, and medical students can take there, during the two years necessary for "residence," the earlier subjects of the medical curriculum. A large number of bursaries are available there for women engaged in the study of Medicine, of which particulars can be obtained from the Secretary of the University. The last three years of the medical course can be taken at the Edinburgh School of Medicine for Women, and at the Royal Infirmary.

3. Triple Qualification of the Scottish Conjoint Colleges.—Those who do not desire a University degree can present themselves for the Triple Qualification of the Conjoint Scottish Colleges, the regulations for which can be obtained at the School, or from the Secretary, Mr Robertson, 1 George Square, Edinburgh.

4. Other Degrees and Qualifications.—The classes given at this School also qualify for all the other Examining Boards that are open to women.

# GENERAL INQUIRIES.

All inquiries as to classes, &c., are to be addressed to Miss Cross, Secretary, at the School, and a stamped and addressed envelope should be sent whenever a reply is desired by post. Miss Cross can be seen at the School from 10 a.m. to 12 daily during Term. During August the School is closed.

The Dean can be seen at the School at 10 a.m. on Mondays, and on other days at her own house at 2 p.m.

It is hoped that a Hall of Residence may ultimately be opened in connection with the School, and in the meantime Miss Cross will be glad to assist students to find desirable lodgings, or board in families. Comfortable board can be obtained at about £1 a week, but of course the price varies greatly according to requirements.

#### 158 EDINBURGH SCHOOL OF MEDICINE FOR WOMEN

Arrangements will be made to supply a substantial mid-day meal at the School during the Session, for those who cannot conveniently go home to dinner, and for this a charge of £3 will be made for the Winter Session, and £1, 10s. for the Summer Session.

### Biennial Rotation of Classes.

Subject to such modification as the Executive Committee may find expedient from time to time.

#### 1896-97.

SUMMER SESSION. Winter Session. Practice of Surgery. Forensic Medicine. Midwifery. Part II. Clinical Medicine. Mental Diseases. Clinical Surgery. Hospital Visits. Hospital Visits. Clinical Medicine. Fevers. Natural Philosophy. Clinical Surgery. Chemistry. Botany. Zoology. Anatomy. Practical Chemistry. Practical Anatomy. Practical Pharmacy. Histology.

The classes given in italics are intended for Junior Students.

It is intended that Dispensary Practice, Practical Midwifery, and Vaccination, should be taken during the Fourth or Fifth Year of study.

# THE MEDICAL COLLEGE FOR WOMEN,

Minto House, Chambers Street, Edinburgh.

This College was founded and is conducted by the Scottish Association for the Medical Education of Women with the special object of affording to lady students exactly the same facilities for Medical Study as are offered to male students in the School of Medicine, Edinburgh.

The Students receive their Clinical Instruction in the Royal Infirmary, and the Sick Children's Hospital and Edinburgh Dispensaries are also open to them.

The arrangements for Teaching and the Fees charged are similar to those charged to male students in the School of Medicine. Generally speaking, the Regulations of that School may be considered as applicable to the students of the College.

All the Teachers in the College are duly qualified Lecturers of the School of Medicine of the Royal Colleges of Edinburgh, and special courses of instruction are formed as may be required.

The College affords to ladies desirous of studying Medicine an opportunity of prosecuting a complete course of Medical Study, or of attending any individual Class or Classes.

The Course of Study qualifies for admission to Examination at the University of Edinburgh, Triple Qualification Board, and any of the other Universities or Colleges open to Women.

The Classes, with the exception of those in the Royal Infirmary, are open to all ladies whether taking a full medical curriculum or not.

Intending Students may obtain Prospectuses and all information on application to the Secretary of the College, Miss Helen F. Mackay, 20 Chambers Street, or to the Clerk of the Association, Mr Alex. T. Hunter, C.A., 128 George Street.

# Office-Bearers of the Association.

President-SIR ALEXANDER CHRISTISON, Bart.

Vice-Presidents { J. R. FINDLAY, Esq., of Aberlour. MRS AUCKLAND GEDDES.

#### COURT

Joseph Bell, M.D., F.R.C.S.E.
R. C. Maclagan, M.D., F.R.C.P.E.
J. Allan Gray, M.A., M.D., F.R.C.P.E.
Francis Cadell, M.B., F.R.C.S.E.
W. Ivison Macadam, F.R.S.E., F.I.C., F.C.S.
R. W. Philip, M.A., M.D., F.R.C.P.E.
Robert Simson.
Mrs Campbell Bow.

Clerk and Treasurer-Alex. T. Hunter, C.A.

#### Lecturers.

Anatomy { Practical Anatomy   Course of Lectures   J. Ryland Whitaker, B.A., M.B.Lond., F.R.C.P.E., L.R.C.S.E.
Chemistry (Lectures
Practice of Physics
Operative Surgery and Surgical Alexis Thomson, M.D., C.M., F.R.C.S.E.
Midwifery and Diseases of Women J. W. Ballantyne, M.D., C.M., F.R.C.P.E.
Institutes of Medicine
Practical Physiology D. Noël Paton, M.D. B.Sc., F.R.C.P.E.
Histology
General Pathology and Morbid Wm. Russell, M.D., C.M., F.R.C.P.E.
Medical Jurisprudence and Sir H. D. Littlejohn, M.D., LL.D., F.R.C.S.E.
Materia Medica and Therapeutics
Practical Materia Medica, in- cluding Practical Pharmacy Wm. Craig, M.D., C.M., F.R.C.S.E., F.R.S.E.
( Mr Joseph Bell, F.R.C.S.E., and Mr Burn-
Diseases of Children Murdoch, M.B., C.M., at Siek Children's Hospital.
A. S. Cumming, M.D., C.M., F.R.C.P.E.
VaccinationFrancis Cadell, M.B., C.M., F.R.C.S.E.

J. Batty Tuke, M.D., F.R.C.P.E., F.R.S.E.,
Insanity and F. MacPherson, M.D.
(N. Brewis, M.B., C.M., F.R.C.P.E., 6 Cam-
Practical Gynecology bridge Street.
Systematic Ophthalmology) G. Mackay, M.D., C.M., F.R.C.S.E., M.R.C.S.
Eng., Surgeons' Hall.
Diseases of the Tronics and Cli-) R. W. Felkin, M.D., C.M., L.R.C.P. & S.E.,
matelogy F.R.S.E., F.R.G.S., 50 Chambers Street.
Potenty and Practical RotanyRobert Turnbull, B.Sc.
Elementary Biology
Turnbull, B.Sc. (jointly), Surgeons Hall
Natural HistoryJ. Arthur Thomson, M.A., F.R.S.E.
Physics
Hospital Practice, Royal Infirmary, 12 noon.
Clinical Medicine, Royal Infirmary Dr Byrom Bramwell, F.R.C.P.E.
Clinical Surgery, Royal Infirmary Mr J. M. Cotterill, M.B., F.R.C.S.E.
Diseases of the Eye By Members of the Staff of Royal Infirmary.
Diseases of the Ear By Members of the Stan of Royal Imirmary.
Diseases of the Skin)
Dispensary Practice
FeversCity Hospital.
Teeris

#### ANATOMY.

J. RYLAND WHITAKER, B.A., M.B. Lond., F.R.C.P.E., L.R.C.S.E., Examiner in Anatomy for Triple Qualification.

Systematic Lectures, illustrated by Diagrams, Dissections, and Models, are given during Winter Session, at 2 p.m. First Prize—Silver Medal, in addition to Certificates of First and Second Class Honours.

Practical Anatomy.—Rooms open during Winter and Summer Sessions from 9 a.m. to 5 p.m., under the personal superintendence of Mr Whitaker, assisted by Lady Demonstrators.

Complete Museum of Dissected Specimens, Models, &c.

Tutorial Classes and Demonstrations are held according to the

requirements of Students, at 5 p.m.

In the Practical Anatomy Class a Special Gold Medal—" The Edgeware Gold Medal"—is awarded to the most distinguished Senior Student of the session. In this and the other classes Silver Medals and Honours Certificates are awarded in the Winter Session, and Bronze Medals and Honours Certificates in the Summer Session.

The Courses qualify for admission to the Examinations in Medi-

cine and Dentistry of all Boards open to Women.

#### CHEMISTRY.

W. Ivison Macadam, F.R.S.E., F.I.C., F.C.S.,

Examiner in Chemistry for Triple Qualification, and Laboratory Work of
Royal College of Surgeons of Edinburgh.

Winter Session.—Lectures commence on 13th October, at 12 noon, and Practical Chemistry at 2 p.m. and other suitable hours.

Summer Session.—Practical Chemistry at 12 noon.

These Courses qualify for the Universities, Triple Qualification, and other examinations open to Women.

Text-books—"Elements of Modern Chemistry" (Wurtz), and "Practical Tables" (W. Ivison Macadam).

#### PHYSICS.

DAWSON TURNER, M.D., F.R.C.P.E., &c. (Surgeons' Hall), Examiner in Physics for Triple Qualification.

Winter, 11 a.m.

Summer, 12 noon.

Full Course of Lectures and Practical Instruction qualifying for the Triple Qualification Board, the University of Edinburgh, and other Boards open to Women, and which will be exactly the same as the course given to male students (see pages 124, 125).

#### ELEMENTARY BIOLOGY.

J. ARTHUR THOMSON, M.A., and ROBERT TURNBULL, B.Sc.

Students attending the Medical College for Women are admitted to the Class of Biology held at Surgeons' Hall, and receive the same course of instruction as male students.

#### PATHOLOGY.

William Russell, M.D., C.M.Ed., F.R.C.P.E.,

Assistant Physician (formerly Pathologist) to the Royal Infirmary,

Edinburgh, &c.

During the Winter Session there are daily Lectures on General Pathology and Morbid Anatomy, including Bacteriology. The Lectures are illustrated by Diagrams and Plates, by fresh Specimens, Museum Preparations, and Casts, as well as by frequent Microscopical Demonstrations.

[Written Examinations are held on the Class work and Practical Examinations on Naked-eye and Microscopic Specimens.]

During the Summer Session Practical Classes are held at hours to be arranged.

This Course includes the mounting and microscopical examina-

tion of morbid growths, and the lesions in the various organs of the body, with explanatory demonstrations; also instruction in the naked-eye appearances, both of fresh and of museum specimens.

[Examinations are held in connection with these Classes, and Medals and Certificates are awarded for proficiency.]

# MIDWIFERY AND DISEASES OF WOMEN AND CHILDREN.

J. W. BALLANTYNE, M.D., C.M.Ed., F.R.C.P.E., F.R.S.E.

Winter Session, 9 a.m.—A Course of Lectures is delivered during the Winter Session, including the Anatomy and Physiology of the Female Pelvis and of the Fœtus; Physiology and Pathology of Pregnancy, Labour, and Puerperal State; Demonstrations on the Phantom, fresh and preserved Specimens, Diagrams, &c.; Diseases of Organs of Generation, Menstruation, Pregnancy, Infancy, and Childhood, &c.

# DISEASES OF CHILDREN.

A. S. Cumming, M.D., C.M.Ed., F.R.C.P.E., F.R.S.E., Extra Physician, Royal Hospital for Sick Children.

A Course of Clinical Instruction is given during the Winter and Summer Sessions at the Dispensary for Children, Lauriston Lane, on Wednesdays and Saturdays, at 11 a.m.

Note.—Particulars of the Courses given by the other Lecturers of the College are exactly similar to those under the School of Medicine, given in the previous pages of this Calendar, and are therefore not repeated here.

# THE INCORPORATED EDINBURGH DENTAL HOSPITAL AND SCHOOL,

31 Chambers Street, Edinburgh.

The Session begins on 5th October 1896.

#### BOARD OF DIRECTORS.

The Right Hon. The Lord Provost,
A. M'Donald.

Sir William Turner, LL.D., D.C.L.

Emeritus Professor Struthers, M.D., LL.D., Pres.R.C.S.E.

Dr P. Hume Maclaren, F.R.C.S.E.

Rev. James MacGregor, D.D.

Bailie Kinloch Anderson.

Sir Henry D. Littlejohn, M.D., LL.D., F.R.C.S.E.

\*Dr John Smith, LL.D., F.R.C.S.E. Dr J. Batty Tuke, Pres.R.C.P.E. Mr Robert Cox, of Gorgie, M.P. Dr R. W. Philip, F.R.C.P.E.

\*Dr James Jamieson, F.R.C.S.E.

\*Mr D. F. Lowe, M.A., F.R.S.E.

Mr Wm. Guy, F.R.C.S.E., L.D.S.Ed.

Mr Malcolm MacGregor, L.D.S.Ed.

\*Mr Andrew Wilson, L.D.S.Ed. Mr R. L. Stuart, W.S.

Mr W. Campbell, L.D.S. Eng.

\*Mr Thomas Wallace, F.F.A., Treasurer.

#### AND

\*Mr W. Bowman Macleod, L.D.S.Ed.,

\*Mr G. W. Watson, L.D.S.Ed.

Mr J. S. Durward, L.D.S.Ed.

Mr James Mackintosh.

Mr J. Graham Munro, L.D.S.Ed.

Mr J. S. Amoore, L.D.S.Ed.

Mr David Munroe, L.D.S.Ed.

Members of the Dental Staff and Directors ex officiis.

\* Those marked with an asterisk form the Administrative Committee

#### DEAN.

Mr W. Bowman Macleod, L.D.S., 16 George Square.

The Directors desire to direct the attention of intending Dental Students to the special advantages which this School affords from its close proximity to the University, the Royal Infirmary, and the Medical School of the Royal Colleges of Surgeons and Physicians of Edinburgh, which have gained a world-wide reputation for the excellence of their methods of training.

For the Special Courses of Lectures and Instruction required by Dental Students, the Directors aim at an equally high standard of excellence, and for this purpose have secured the services of an efficient staff of Dental Surgeons.

In addition to these special courses of Lectures and Instruction, the Directors have instituted four courses of technical teaching preparatory to the practical work at the operating chair.

The Hospital practice is carried on under the supervision of a large staff of Dental Surgeons, three of whom attend the Hospital daily. The Directors have, in addition, appointed a Tutorial Dental Surgeon, who attends every day from 9 to 11 o'clock, and superintends the students in the treatment of cases. He likewise, from time to time, and at least once a week, gives a special demonstration either in gold filling or the preparation of cavities.

Five Chloroformists have been appointed, who instruct in the use of anæsthetics.

A special Course of Lectures and Clinics in the Higher Grades of Gold Filling is given during the Session.

There is also a course of Demonstrations in Mechanical Dentistry, and Students receive instruction in Practical Dental Mechanics under the Mechanician. Lectures and Demonstrations in Dental Metallurgy are given in connection with the class in Dental Mechanics by Mr John E. Mackenzie, Ph.D., B.Sc.

Twenty Lectures on Dental Materia Medica and Therapeutics are given on Thursdays during the Winter Session.

Arrangements have been made whereby Students may receive their Instruction in Mechanical Dentistry in the School.

Students are recommended to spread their attendance at the medical classes over the four years of professional study.

The Triple Qualification of the Royal Colleges of Surgeons and Physicians of Edinburgh and Faculty of Physicians and Surgeons of Glasgow is recommended to those who, in addition to the Dental Diploma, desire to have a medical qualification.

To the teaching power of the Institution such additions will be made from time to time as the requirements of Dental Education may necessitate.

About 15,000 cases were treated at the Hospital in year 1895-96.

# Hospital Practice.

Consulting Medical Officers.

Dr Alexander Peddie, F.R.C.P.E., Physician.

Dr Joseph Bell, F.R.C.S.E., Surgeon.

Dr John Smith, LL.D., F.R.C.S.E., Surgeon-Dentist.

#### DEAN.

Mr W. Bowman Macleod, L.D.S.

DENTAL SURGEONS.	Assistant Dental Surgeons.			
Monday-				
Mr J. G. Munro, L.D.S.	Mr H. B. Ezard, L.D.S.	Mr Fred. J. Turnbull,		
Tuesday— Mr G.W. Watson, L.D.S.	Mr P V Hannah I D C	L.R.C.S.E., L.D.S. Mr D. B. Wilson, L.D.S.		
Wednesday-	Mi II. IV. Hannan, L.D.S.	Mr D. B. Wilson, L.D.S.		
Mr J. S. Durward, L.D.S.	Mr T. Gregory, L.D.S.	Mr H. Purdie, L.D.S.		
Thursday—				
Mr J. S. Amoore, L.D.S. Friday—	Mr Robt. Lindsay, L.D.S.	Mr J. Malcolm, L.D.S.		
Mr James Mackintosh.	Mr Fred. Page. L.D.S.	Mr Sewell Simmons, L.D.S.		
Saturday—				
Mr David Monroe, L.D.S.	MrJ. Alex. Young, L. D.S.	Mr T.A. Mackintosh, L.D.S.		

#### CHLOROFORMISTS.

Monday—Mr R. J. Johnston, M.B., C.M.Ed.
Tuesday—Mr Thos. Proudfoot, M.B., F.R.C.P.Ed.
Wednesday—Mr Wm. Lundie, M.B., C.M.Ed., B.Sc.
Thursday—Dr G. Matheson Cullen, B.Sc.
Saturday—Mr J. M. Farquharson, M.B., C.M.

TUTORIAL DENTAL SURGEON.
Mr J. Morris Stewart, L.D.S.

Hospital Practice commences on Monday, 5th October.

The hours during which the Hospital is open are from 9 to 11 a.m. No operation may be commenced after these hours, except by leave of the Tutorial Dental Surgeon.

The Hospital Practice includes Extractions, Stoppings, Regulating Cases, &c., which will be undertaken by the Students, under the supervision of the Dental Surgeon in attendance.

Students must provide their own stopping instruments.

Burring machines for the use of Senior Students have been added to the Hospital furnishings. Students must supply their own points, &c.

The fee for the necessary attendance of two years is £15, 15s.

The Directors offer two medals for excellence in Hospital Practice-

I. For the best Senior Student.

II. For the best Junior Student.

# Lectures.

# DENTAL ANATOMY AND PHYSIOLOGY (HUMAN AND COMPARATIVE).

Mr Andrew Wilson, L.D.S.Edin., Lecturer.

Introductory .- General Characters of Teeth: their Composition, Form, Position, Number, &c.

THE TEETH IN MAN.

ANATOMY OF CHIEF ASSOCIATED PARTS .- Osseous. Ligamentous. Muscular. Nervous. Vascular.

THE DENTAL TISSUES.—Enamel. Dentine. Cementum. Dental Pulp. THE DEVELOPMENT OF THE TEETH, AND CALCIFICATION OF DENTAL

THE DEVELOPMENT OF THE JAWS, AND THE ERUPTION OF THE TEETH.

ATTACHMENTS OF THE TEETH IN THE VERTEBRATA.

GENERAL OUTLINE OF THE DENTITION AND TEETH IN THE LOWER

DENTITION AND TEETH IN MAMMALIA-GENERAL AND SPECIAL.

These Lectures will be delivered on the Evenings of Tuesday and

Thursday, at Eight o'clock, commencing 3rd November.

This Course, consisting of Twenty-four Lectures, will be illustrated by preparations, models, diagrams, microscopical specimens, &c.

Fee, £3, 5s.

A silver medal is presented by Mr Wilson to the best Student in this Class.

Year 1895-96—Mr J. K. Nash, Mr H. P. Friend, medalists.

### DENTAL SURGERY AND PATHOLOGY.

Mr George W. Watson, L.D.S. Edin., Lecturer.

INFLAMMATION .- Definition, pathology, and symptoms. Its important bearing in relation to Dental Surgery. Various examples of this action in connection therewith.

First Dentition.—Associative Lesion of First Dentition. Effects of Struma, Syphilis, and other diseases on Dentition. Period of eruption of temporary Teeth. Diseases connected with the temporary Teeth, and their treatment. Conditions interfering with the absorption of the temporary Teeth, and the results therefrom.

SECOND DENTITION.—Period of eruption. Irregularities caused by anomalies in size, number, and position of Teeth. Treatment to be adopted.

Dislocation, fracture, and other injuries to the Teeth.

DISEASES OF THE TEETH.—Dental Caries, its various forms and pathology. Chemical, chemico-vital, parasitic, and other theories of decay. Treatment,

local and constitutional. The operation of tooth-filling in its varied forms

and relations. Excision as a remedy for caries.

DISEASES OF THE PULP, ALVEOLO DENTAL MEMBRANE, AND TISSUES OF THE ORAL CAVITY.—Treatment. The effects of Mercury, Rheumatism, Syphilis, &c., on the soft and hard structures connected with the Teeth. Necrosis, Exostosis, Absorption. Abrasion and Erosion. Salivary calculus. Abnormal conditions of the Mucous Membrane of Mouth. Hypertrophy. Epulis, &c. Odontomes. Dentigerous Cysts. Diseases of Antrum. Extraction of Teeth. Replantation, Transplantation, and Implantation.

ORAL SURGERY.—Diseases connected with the Salivary Ducts. Dislocations and Fractures of the Jaw. General considerations of Tumours. Harelip. Cleft Palate. Perforations of hard palate. Necrosis and Caries of Bone. Neuralgia. Chloride of Ethyl, Nitrous Oxide, Cocaine, &c.,-Administration

of and Uses.

These Lectures will be delivered on the mornings of Tuesday and Friday at Eight o'clock, a.m., during the Summer Session, commencing in May.

This Course, consisting of Twenty-four Lectures, will be illustrated by preparations, models, diagrams, photo-micrographs, micro-

scopical preparations, &c.

Fee, £3, 5s.

A medal is presented by Mr Watson to the best student in this Class.

Year 1895-96—Mr J. Coltman, silver medal; Mr T. R. D. Walkinshaw, bronze medal.

#### MECHANICAL DENTISTRY.

Messrs W. Bowman Macleod, L.D.S.Edin. \ Lecturers. and J. Graham Munro, L.D.S. Edin.

INTRODUCTORY.

The principles which govern the construction and application of artificial Dentures.

Preparation of the Mouth. Taking impressions. Materials used in doing so, and modes of employment.

The Workroom and its Furnishings.

Heat (Dry and moist) in its application to Dental purposes.

Moulding and Casting.

The Materials ordinarily used in Dentistry (Gold and other Metals, Vulcanite, Celluloid, Cheoplasty)-Their application.

Continuous Gum Work, and the Manufacture of Mineral Teeth.

Construction of Obturators, artificial Vela.

Bone Work and Natural Teeth.

These Lectures will commence on Wednesday, 11th November, at 8 p.m., and continue till the course of at least Twelve Lectures or Demonstrations is concluded. Students are recommended to enter this class immediately on joining the Hospital, as the Demonstrations are a most important feature of the course of instruction, and are given as cases present themselves during the two years.

A Class in Dental Metallurgy is now attached to the above Lectures.

Fee, £3, 5s.

A medal is presented by Mr Macleod to the best student in this Class.

Year 1895-96-Mr H. P. Friend, gold medalist.

#### PRACTICAL DENTAL MECHANICS.

Mechanician-Mr James Mein.

In addition to the Systematic Lectures, there will be given, during the Session, Demonstrations on Dental Mechanics, and each Student will be expected to prepare the mouth, take the impression, make the denture, and insert the same in at least four cases.

The Demonstrations will be spread over the two years of

Hospital practice, and will be given as occasion serves.

Students will be required to furnish their own hand tools.

In addition to the above, the Directors have made arrangements for the following auxiliary Lectures and Demonstrations, the fees for which are included in the Hospital Practice fee:—

#### INTRODUCTORY DENTAL SURGERY.

Mr J. S. Amoore, L.D.S.Eng., Lecturer.

This Class must be taken prior to Students being permitted to operate in extractions, and the instruction will embrace—

Nomenclature, Anatomy, and Relations of the Human Teeth.

Instruments used in Extraction—Their Construction and Use—Accidents to be guarded against.

#### CONSERVATIVE DENTISTRY.

Mr J. GRAHAM MUNRO, L.D.S.Edin., Demonstrator.

The instruction will embrace

FORMATION OF CAVITIES for FILLING (A) GOLD, (B) ALLOYS, (C) GUTTA-PERCHA, (D) CEMENTS.

Each Student must attend this class, and also procure a set of excavators, pluggers, rubberdam, &c., conform to the instructions of Mr Munro, before he is allowed to begin practical work.

# DENTAL MATERIA MEDICA AND THERAPEUTICS.

Winter Session.

Mr WM. GUY, F.R.C.S.E., L.R.C.P.E., L.D.S.Edin., Lecturer.

Intimation as to the hours and days of these Classes will be posted on the notice board.

#### DENTAL METALLURGY.

Mr John E. Mackenzie, Ph.D., B.Sc., Lecturer.

Metallurgical processes and apparatus. General characters of metals, alloys, and amalgams.

The following metals, their alloys, and more important compounds:—

Iron, Nickel—Tridium, Platinum—Copper, Silver, Gold—Magnesium, Zinc, Cadmium, Mercury—Tin, Lead. Arsenic, Antimony, Bismuth. Dental alloys, amalgams, and white fillings.

It is proposed that a practical class be held in connection with these Lectures, to familiarise the Student with metallurgical operations.

#### DENTAL MECHANICS.

The use of the workroom, under the superintendence of the Mechanician, will be offered to Students, subject to such rules and regulations as may from time to time be issued by the Administrative Committee, of which notice will be posted at the beginning of each session.

#### DENTAL MICROSCOPY.

Mr G. W. Watson, L.D.S., will conduct a Class for the Study of Dental Histology on Saturdays during the Winter Session.

#### GOLD-FILLING.

In addition to the ordinary Clinics given by the Tutor, Mr J. Morris Stewart, L.D.S., a Special Course of 10 Lectures will be given during the Winter on Friday afternoons, and 10 Demonstrations during the Summer Sessions, by Mr Herbert B. Ezard, L.D.S. The Lectures will embrace the following:—

Introductory—Gold, its characteristics and manipulation—soft, cohesive, and in combination with tin.

Instruments and Appliances necessary for Gold-Filling. The general principles of Cavities, and their preparation.

The division of Cavities into systematic groups, viz. : simplecompound - complex - cervical - cingulum - root; with methods of filling each.

The use of the matrix. The finishing of Fillings.

The use of Gold-Fillings in Crown, Bar, and Bridge work.

#### The Demonstrations will consist of :-

Filling Crown Cavities with upper and lower molars. Filling Interstitial Cavities in upper incisors (compound). Filling Interstitial Cavities in upper incisors (complex). Mesial Contour fillings in first Bicuspids without Matrix. Mesial Contour fillings with Matrix. Distal fillings with Matrix (Tin and Gold). Cervical Cavities—cingulum cavities.

Interstitial Cavities in lower incisors.

Tin filling—combined tin and gold, and soft-foil filling (under water).

Mr H. B. Ezard offers a Medal for the best gold fillings, for which a special competition is held. Year 1895-96—Mr T. R. D. Walkinshaw, medalist.

#### HOSPITAL DEMONSTRATIONS.

The Dental Surgeons will give Demonstrations to the Students

during the Session on cases selected from time to time.

Senior Students will have opportunities of witnessing and performing operations under Anæsthetics, those only who have passed their "first professional" being recognised as Senior Students in this department. The administration of Chloroform will be taught by the Specialists, Drs Farquharson, Cullen, Lundie, Proudfoot, and Johnston.

#### THE MACGREGOR MEDAL.

Mr Malcolm Macgregor, L.D.S., has recently very generously gifted a sum of £150 to the School, out of which is to be provided yearly a gold medal to be awarded to the best all round Senior Student of the year, as decided on a vote by ballot of the Senior Students.

Year 1895-96—Mr C. L. Routledge, medalist.

The Dean attends the Hospital every Thursday, between 9 and 10 a.m., and may be consulted by Students on matters of import-

# 172 EDINBURGH DENTAL HOSPITAL AND SCHOOL.

ance at his house, 16 George Square, on other days during that hour. Any further information regarding the classes, &c., may be had on application to the Dean.

The following are the minimum fees payable for the compulsory course of Lectures and Instruction:—

#### FIRST TWO YEARS.

	Taugr	TWO	TE	uno.					
Dental Hospital, -	-	-	-	£15	15	0			
Practical Anatomy and	Demon	strati	ons,						
twelve months,		-		8	8	0			
Lectures on Anatomy,					5	0			
" Chemistry,	-	-	-	3		0			
Practical ,,	-	-	-	3	3	0			
Physiology, -	-	-	-	3	5	0			
1 113 0101083,				_		_	£37	1	0
	SECONI	Two	O YI	EARS.					
Medicine,	-	-	-	£3	5	0			
Medicine, Materia Medica, -	_	-	-	3	5	0			
Surgery,		-	-	3	- 5	0			
Infirmary, twelve mon		-	-	6	6	0			
Clinical Lectures on Su		12 m	onth		9				
Special Classes (see pp				9	15				
opeciai Ciasses (see pp	. 101 0	0 100	/,	_			31	5	0
Examinations—Prelin	ninary			£.1	0	0			
	ssional,				10	0			
T Tote	ssionai,		-	10	10		11	10	0
							11	10	
				Tot	al co	ost,	£79	16	0
				TO	Leer O	0009			1000

# THE ROYAL INFIRMARY.

#### Officials.

Superintendent,	.Surgeon Major-General S. A. Lithgow,
	M.D., C.B., D.S.O.
Treasurer and Clerk,	. William S. Caw.
Lady Superintendent of Nurses,	Miss Spencer.
Assistant-Superintendents of Nurses,	.Misses Walker, Reith, Frater, & Robin.
Chaplain,	.Rev. Wm. Aitken, M.A.
Assistant-Chaplain,	.Alexander Black.
Steward,	.John Macpherson.
Dispenser,	.T. Alexander.
Registrar,	.B. Coppock.
Chief Porter,	

The Infirmary is the backbone of the Edinburgh School of Medicine. The idea of providing an Infirmary for Edinburgh was broached in the year 1721, but, owing to want of funds, the old Infirmary was not commenced till August 1738. The evident intention of its founders was to meet the requirements of all classes of patients, for it even contained "twelve cells for lunatics, all vaulted." The means by which it was erected were certainly unique, for it appears that those who could not give money gave stones, lime, wood, &c.—the glassmakers of Newcastle supplying all the glass to glaze the windows. As time passed on considerable additions had to be made to the old building, till it was at last found that it could no longer be made to meet the demands of modern medical science.

Since the old Infirmary was built there had been a complete revolution of ideas with regard to the construction of hospitals; besides, the increasing demands of the growing Medical School required that a new Infirmary should be provided. After much discussion it was decided to select a site at some distance from the old, and to erect the present handsome building.

The first stone of the present Infirmary was laid by the Prince

of Wales on the 13th of October 1870, and it was opened in October 1879. It is one of the largest hospitals in the United Kingdom, and probably the best planned. Built on the pavilion plan, it is divided into eight blocks, containing thirty-two large and ten small Wards, apportioned as follows: -Ordinary Medical-12 large and 1 small; Ordinary Surgical-14 large and 2 small; Ovariotomy-1 large and 2 small; Skin, and Ear, and Throat-2 small; Ophthalmic—2 large; Mental Diseases—1 large; Venereal—2 large; Isolation—1 small; Students—1 small; and Observation-1 small ward. The Clinical class-rooms for the University and Extra-mural Students have been considerably enlarged since the opening of the new buildings, while two new operating theatres have been added to the Surgical department. The receipts from Students' tickets amounted to £3799, 15s. in 1895. Every means are used that increase of knowledge can suggest to enable the Student to obtain a firm grasp of the great principles of Medicine and Surgery. Devotedness to the work of teaching is apparent everywhere in the wards, and even the most listless Student cannot fail to be benefited by a visit.

Subjoined is a list of the present staff-

#### MEDICAL DEPARTMENT.

Visiting Hour, 12 noon daily (except Sunday).

Professors of Clinical Medicine,  Sir T. Grainger Stewart, M.D., F.R.C.P.E. Dr T. R. Fraser, LL.D., F.R.C.P.E. Dr W.S.Greenfield, F.R.C.P.E., F.R.C.P.Lond.  Ordinary Physicians and Lecturers on Clinical Medicine,  Dr John Wyllie, F.R.C.P.E. Dr J. O. Affleck, F.R.C.P.E., F.R.C.S.E. Dr Andrew Smart, LL.D., F.R.C.P.E. Dr Alex. James, F.R.C.P.E.  Physician and Lecturer on Dr J. Halliday Croom, F.R.C.P.E., F.R.C.S.E.  Physician for Diseases of the Skin, Dr W. Allan Jamieson, F.R.C.P.E.  Dr Geo. A. Gibson, F.R.C.P.E. Dr Alex. Bruce, F.R.C.P.E. Dr Alex. Bruce, F.R.C.P.E. Dr R. W. Philip, F.R.C.P.E.	Consulting Physicians,	Dr George W. Balfour, LL.D., F.R.C.P.E. Professor Sir D. Maclagan, M.D., LL.D., F.R.C.P. & S.E. Dr Claud Muirhead, F.R.C.P.E.
Ordinary Physicians and Lecturers on Clinical Medicine,  Dr J. O. Affleck, F.R.C.P.E., F.R.C.S.E. Dr Andrew Smart, LL.D., F.R.C.P.E. Dr Alex. James, F.R.C.P.E.  Physician and Lecturer on Diseases peculiar to Women,  Dr J. Halliday Croom, F.R.C.P.E., F.R.C.S.E.  Dr Byrom Bramwell, F.R.C.P.E., F.R.C.S.E. Dr Geo. A. Gibson, F.R.C.P.E. Dr Alex. Bruce, F.R.C.P.E. Dr R. W. Philip, F.R.C.P.E.	Professors of Clinical Medicine,	Sir T. Grainger Stewart, M.D., F.R.C.P.E. Dr T. R. Fraser, LL.D., F.R.C.P.E.
Diseases peculiar to Women, S  Physician for Diseases of the Skin, Dr W. Allan Jamieson, F.R.C.P.E.  Dr Byrom Bramwell, F.R.C.P.E., F.R.C.S.E.  Dr Geo. A. Gibson, F.R.C.P.E.  Dr Alex. Bruce, F.R.C.P.E.  Dr R. W. Philip, F.R.C.P.E.	turers on Clinical Medicine,	Dr J. O. Affleck, F.R.C.P.E., F.R.C.S.E. Dr Andrew Smart, LL.D., F.R.C.P.E.
Dr Byrom Bramwell, F.R.C.P.E., F.R.C.S.E. Dr Geo. A. Gibson, F.R.C.P.E. Dr Alex. Bruce, F.R.C.P.E. Dr R. W. Philip, F.R.C.P.E.	Physician and Lecturer on Diseases peculiar to Women,	Dr J. Halliday Croom, F.R.C.P.E., F.R.C.S.E.
Dr Byrom Bramwell, F.R.C.P.E., F.R.C.S.E. Dr Geo. A. Gibson, F.R.C.P.E. Dr Alex. Bruce, F.R.C.P.E. Dr R. W. Philip, F.R.C.P.E.	Physician for Diseases of the Skin,	Dr W. Allan Jamieson, F.R.C.P.E.
Dr Wm. Russell, F.R.C.P.E. Mr J. Murdoch Brown, M.B., F.R.C.P.E. Dr Ralph Stockman, F.R.C.P.E. (Dr G. Lovell Gulland, F.R.C.P.E.	Assistant Physicians,	Dr Byrom Bramwell, F.R.C.P.E., F.R.C.S.E. Dr Geo. A. Gibson, F.R.C.P.E. Dr Alex. Bruce, F.R.C.P.E. Dr R. W. Philip, F.R.C.P.E. Dr Wm. Russell, F.R.C.P.E. Mr J. Murdoch Brown, M.B., F.R.C.P.E. Dr Ralph Stockman, F.R.C.P.E.

Assistant Physicians for Diseases (Dr D. Berry Hart, F.R.C.P.E. of Women, (Dr A. H. F. Barbour, F.R.C.P.E. Assistant Physician for Diseases) of the Skin, (Dr Norman P. Walker, F.R.C.P.E. Medical Registrar—Dr A. Lockhart Gillespie, F.R.C.P.E.

#### SURGICAL DEPARTMENT.

Visiting Hour, 11 A.M., daily (except Sunday).

, ming man, and compression
Consulting Surgeons,
(Mr Joseph Bell, F.R.C.S.E.
Consulting Dental Surgeon, Dr John Smith, LL.D., F.R.C.S.E.
Regius Professor of Clinical Mr Thomas Annandale, F.R.C.S.E., Hon. Surgery,
Professor of Surgery, Mr John Chiene, F.R.C.S.E.
Extra Surgeon, Mr John Duncan, LL.D., F.R.C.S.E.
Ordinary Surgeons,
Extra Ophthalmic Surgeon, Dr Argyll Robertson, LL.D., F.R.C.S.E.
Ophthalmic Surgeons,
Surgeon to the Ear and Throat) Dr P. M'Bride, F.R.C.P.E.
Assistant Surgeons,  Mr J. M. Cotterill, F.R.C.S.E. Mr Charles W. Cathcart, F.R.C.S.E., F.R.C.S.Eng. Mr F. M. Caird, F.R.C.S.E. Dr J. W. B. Hodsdon, F.R.C.S.E. Mr J. Shaw M'Laren, F.R.C.S.E. Mr David Wallace, F.R.C.S.E. Dr Alexis Thomson, F.R.C.S.E.
Assistant Ophthalmic Surgeons, Dr W. G. Sym, F.R.C.S.E.
Assistant Surgeon to the Ear Dr R. M'Kenzie Johnston, F.R.C.S.E.
Dental Surgeon, Mr William Guy, F.R.C.S.E., & L.D.S.Ed.
Pathologists,
Surgical Registrar—Dr Kenneth M. Douglas, F.R.C.S.E.

For Perpetual Ticket, in one Payment, £12; for Annual Ticket, £6, 6s.; for Six Months, £4, 4s.; for Three Months, £2, 2s.; for One Month, £1, 1s. Separate Payments, amounting to £12, 12s. entitle the Student to a Perpetual Ticket on return of previous Season Tickets. Tickets may be obtained at the Treasurer's Office.

Every Student visiting the Wards, Operating and Pathological Theatres, attending any Clinical Class in the Royal Infirmary, or acting as a Clerk or Dresser, must be in possession of a Hospital Ticket for the period during which he visits, attends, or acts. The Infirmary Ticket entitles the holder to attend the Medical and Surgical Practice, the ordinary Cliniques in the Wards, and the Demonstrations in the Special Departments in the Infirmary, at such hours, and under such conditions, as the Managers may from time to time determine. The Ticket does not admit to Clinical Lectures.

In this Hospital a portion of the beds is set apart for Clinical Instruction by the Professors of the University of Edinburgh. Courses of Clinical Medicine and Surgery are also given by the Ordinary Physicians and Surgeons. Special instruction is given in the Medical Department on the Diseases of Women, and of the Skin, Physical Diagnosis, &c.; and in the Surgical department on Diseases of the Eye and the Teeth. Separate wards are devoted to Venereal Diseases, Diseases of Women, Diseases of the Eye, the Ear, the Throat, and the Skin; also to cases of incidental Delirium or Insanity. Post-mortem Examinations are conducted in the Anatomical Theatre by the Pathologists, who also give practical instruction in Pathological Anatomy and Histology.

Ward V. and half of Ward V<sup>\*</sup>., Surgical (Mr J. M. Cotterill, M.B., F.R.C.S.E.), and Ward XXVII. and half of Ward V<sup>\*</sup>., Medical (Dr Byrom Bramwell, F.R.C.P.E.), are specially reserved for the Clinical Instruction of Women Students.

The annual average number of in-patients is between 9000 and 10,000, and the out-patients 25,000.

#### APPOINTMENTS.

No fees are charged for any Medical or Surgical appointments in this Hospital. The subordinate appointments are made by the Physicians and Surgeons, or, on their recommendation, by the Managers; and they are open to all students and junior practitioners holding the Hospital Ticket during the period over which the appointment extends. These appointments are as follow:—

- 1. Resident Physicians and Surgeons, who must be registered as legally qualified practitioners, are from time to time appointed by the Managers, on the recommendation of the Physicians and Surgeons. The holders of these offices live in the House free of charge. The appointment is for six months, but may be renewed at the end of that period by special recommendation.
- 2. Special Non-Resident Clinical Clerks, who must also be registered as legally qualified practitioners, are appointed by the Managers on the recommendation of the Physicians and Surgeons, for such periods and under such conditions as they deem expedient.

3. CLERKS AND DRESSERS are appointed by the Physicians and Surgeons. These appointments are open to all students and junior practitioners holding Hospital Tickets.

4. Assistants in the Pathological Department are appointed by the

Pathologists.

### MEDICAL HOUSE.

Physicians.	Wards.	Ward Cliniques.	Clinical Lectures.
Prof. Simpson	1277	( ments.	Clinical Medicine fedical Class-room idays, from 12 to 1. Lecturers lecture Class-room on the e same hour.
Prof. Sir T. G. STEWART	(25 (4), Female	Mon., Wed., and alternate Thurs., 12 to 1.30.	dl Med Class-r com 12 ers lec com oo hour.
Prof. Fraser	(25 (1), Female	Mon., Wed., and alternate Thurs., 12 to 1.45.	Clinical Medical Class lays, from secturers lass-room
Prof. GRBENFIELD	(24 (1), Female	) Do.	f Clinical Medical Class- ridays, from 13 I Lecturers le I Class-room one same hour.
Dr WYLLIE	(33 (1), Female	(Mon., Wed., and Thurs., 12 to 1.30; Tues and Fri., 1 to 1.30. (Mon, Wed., and Thurs., 12 to	
Dr Affleck	(28 (1), Female	( 1.30.	000 000
Dr Smart	(33 (½), Female		rofe n th lay: xtr est rs a
Dr James	30, Male	Do.	President Ex
Dr HALLIDAY CROOM	28 (1), 36, Female	11 to 12.	
Dr Byrom Bramwell	(5A (1), do	Reserved for Women Students only.	The lectur on Tr The in the same

# SURGICAL HOUSE.

Surgeons.	Wards.	Clinical Lectures.	Ward Visits.	Out-patient Cliniques.
Prof. Annandale	{1, 7, 9, Male} {8, Female}	Mondays and Thur., 12 noon	} 11 a.m.	Mon. and Fridays, 11 to 12, in Large Theatre.
Mr Duncan & Mr Miller	{10, 12, Male }	Do. do. Clinical Instruction Daily	11 to 1	(Tues. and Thur.,
Prof. CHIENE	{13, Male}		} 11 to 1	CART 2 2 21 1
Dr Maclaren	{18, Male }	Mondays and Thur., 12 noon, Clinical Instruction Daily	11 to 1	{Wed., 12 to 1, in Large Theatre.
Dr MacGillivray	{16, Male }	Mondays and Thur., 12 noon, Clinical Instruction Daily	} 11 to 2	Every alternate Sat., 11 to 12, in Large Theatre.
Dr Argyll Robertson Mr Berry	) 3. Male		,	
Mr Berry Dr Mackay	3, Male}		} 11 to 1	See under "Special Departments."
	(5, Male) (5A (1/2), Female	Reserved for Women. Students only	} 11 to 1	
Mr Cathcart	Lane, Male	See under "Special Departments."		
Dr A. BRUCE	(6, Male and)	Alternate Thurs- days, 1 to 2.		
Dr M'BRIDE	. 37, Male)	See under "Special		
Dr Allan Jamieson	. (38, Female)	Departments."		

#### OPERATIONS.

Notices of Operations to be performed will be found at the East Gate.

#### SPECIAL DEPARTMENTS.

All applications for permission to attend a Limited Clinique, in any Department, are to be made to the Physician or Surgeon in charge, who will give to the selected Students Tickets to be presented at each attendance.

#### GYNECOLOGICAL.

Prof. Simpson—Limited Cliniques to sections of Students, as arranged by the Professor.

Bedside Clinique—Every Thursday and alternate Monday, 12 noon.

Out-Patient Cliniques (limited)—Tuesdays and Fridays, 1 p.m.

Dr Haldiday Croom—Limited Cliniques to sections of Students, as arranged by Dr Croom. Mondays, Wednesdays, and Thursdays, 11 to 12 a.m.

These Cliniques strictly confined to fourth year Students and their seniors.

#### EYE.

Dr Argyll Robertson Mr Berry Dr Mackay	Ward and Out-Patient Clinique Thursday, at 11 to 1 Mon. Wed. & Fri. 11 to 1 Tues. and Sat. 11 to 1 dents.
Special limited advanced	Post-Graduate Clinique by Mr Berry on Saturdays,
	12 to 1.

#### LOCK.

MALE-6 Lauriston Lane-Mr CATHCART.

Out-Patients and Ward Visit-Mon. and Thur., 11 a.m. Operations-Wed., 12 noon. Open to all Students.

Female—Demonstrations in Tower to a limited number of Students.

Tuesdays and Fridays, 11 a.m.

Strictly confined to Students who have passed their Second Professional Examination.

#### MEDICAL OUT-PATIENT.

Dr G. A. GIBSON.	Medical Waiting-room.	Mondays, 11 to 1 o'clock.
Dr A. BRUCE.	Do.	Wednesdays, "
Dr R. W. PHILIP.	1)0.	Fridays, "
Dr W. Russell.	Do.	Tuesdays, "
Dr Murdoch Brown	. Do.	Thursdays, "
Dr STOCKMAN.	Do.	Saturdays, "

A Demonstration is given by Dr Byrom Bramwell in the University Clinical Class-Room, on Saturdays at 12 noon.

#### EAR AND THROAT.

Dr M'Bride
D. M'Kenzie Johnston, Assistant Surgeon

Departmental-Rooms in Lower
Surgical Corridor.

Tuesdays and Fridays—Cliniques, from 11 to 12 noon.

#### SKIN.

Dr W. Allan Jamieson—West Medical Theatre.
Saturdays, Out-Patients, 10 to 11 a.m.; Clinique, 11 to 12 noon.

Dr Norman Walker, Assistant Physician—West Medical Theatre.
Wednesdays, Out-Patients, 10 to 11 a.m.; Clinique, 11 to 12 noon.

Ward Visit daily, except Saturday, at 12 o'clock.

#### DENTAL SURGERY.

Mr Guv—Departmental Rooms in Lower Surgical Corridor.

Wednesdays, 12 to 1.

Strictly limited to Students who have passed their Second Professional Examination.

#### PATHOLOGICAL DEPARTMENT.

Mr R. F. C. LEITH and Dr ROBERT MUIR.

Medical P.M. Exams., &c., at 11 a.m.) As notified at East Gate and at Entrance Surgical P.M. Exams., &c., at 1 p.m.) to Pathological Department.

# LEITH HOSPITAL.

### PRACTICAL CLINICAL INSTRUCTION.

President—John Struthers, M.D., LL.D., F.R.C.S.E.,

Consulting Physicians—G. W. Balfour, M.D., LL.D., F.R.C.P.E., and
J. Henderson, M.D., F.R.C.S.E.

Consulting Surgeon—P. Heron Watson, M.D., LL.D., F.R.C.S.E.,

Hon. F.R.C.S. Irel.

Pathologist—Theodore Shennan, M.D.

Limited Cliniques for Senior Students are held in the Wards of the Hospital as under:—

Clinical Medicine, { Dr William Elder, F.R.C.P.E., Dr H. G. Langwill, F.R.C.P.E. } Physicians to the Hospital.

On two Afternoons each week, at hours to be arranged to suit the convenience of Students.

Clinical Surgery, { Dr William Stewart, F.F.P. & S.G. } Surgeons to the Hospital.

On two Afternoons each week, at hours to be arranged to suit the convenience of Students.

Gynæcology, Dr D. Berry Hart, F.R.C.P.E. Physician for Diseases of Women. Wednesdays and Saturdays, at 4 p.m.

Ophthalmology, Dr W. G. Sym, F.R.C.S.E. Surgeon for Diseases of the Eye.

Tuesdays and Fridays, at 5 p.m.

Out-Patient
Department.

Dr George Elder, M.R.C.P.E.
Dr James S. Fowler, M.R.C.S.Eng.
DrA.Scott-Skirving, M.R.C.S.Eng.

Students desirous of joining these Cliniques may obtain further particulars from Mr Miles, F.R.C.S.E., 23 George Square, Edinburgh.

# ROYAL DISPENSARY,

#### 21 West Richmond Street.

Established 1776.

Consulting Physician—G. W. Balfour, M.D., LL.D., F.R.C.P.E. Consulting Surgeon—Sir H. D. Littlejohn, M.D., LL.D., F.R.C.S.E.

#### Medical Officers.

Peter Young, M.D., F.R.C.P.E.
Alex. Black, M.B., F.R.C.P.E.
G. H. Melville Dunlop, M.D.,
F.R.C.P.E.
R. H. Blaikie, M.D., F.R.C.S.E.
David Wallace, M.B., F.R.C.S.E.

F. W. N. Haultain, M.D., F.R.C.P.E.
Harold J. Stiles, M.B., F.R.C.S.E.
James Hutchison, M.D., F.R.C.S.E.
W. G. A. Robertson, M.D., D.Sc.,
F.R.C.P.E.
W. M. Hutton, M.D., F.R.C.S.E.

Physicians-Accoucheur—Drs P. Young, James Andrew, Haultain, and Dunlop.

Diseases of Women—Dr P. Young and Dr Haultain.

Diseases of Ear and Throat—Dr Blaikie.

Diseases of Children—Dr Dunlop.

Mental Diseases—Dr J. Batty Tuke, F.R.C.P.E.

Vaccination—Dr W. Husband, F.R.C.S.E.

Secretary to Medical Officers—Dr James Andrew, F.R.C.P.E.

Apothecary—Mr W. Duncan.

In this establishment the student will find unusual facilities for the acquisition of a knowledge of the routine of general practice, including Midwifery and Vaccination, the cases attended averaging between ten and eleven thousand annually—seventy-five per cent of which are prescribed for at the Dispensary, and the rest treated at their own homes.

In the systematic teaching of Practical Pharmacy and the elements of Materia Medica, considerable improvements have recently been made, including the introduction of a complete set of specimens of all the officinal, and most of the unofficinal, sub-

stances used in medicine. The pupils have also an opportunity of seeing and taking a part in the preparation of typical Pharmacopæia preparations, and each student will have ample opportunities of compounding prescriptions, an enormous number of which have been dispensed during the past twelve months. The fees are—

General Practice,	Three months,	£2	2	0	
	Six months,,				
Midwifery,	Six Cases,	1	1	0	
Do.,	Twelve Cases,	2	2	0	
Vaccination,	Six weeks,	1	1	0	
Practical Pharmacy,	Three months,	2	2	0	
Do.,	Six months,	3	3	0	

As the work of the Dispensary is carried on continuously throughout the year, students may enter at any time.

# NEW TOWN DISPENSARY,

## 17 East Thistle Street.

Established 1815.

This Institution is supported entirely by voluntary annual subscriptions and donations. The number of patients treated annually is about 10,000.

Consulting Physician,—Sir Douglas Maclagan, M.D., LL.D., F.R.C.P. & S.E. Consulting Surgeon,—John Duncan, LL.D., F.R.C.S.E. Consulting Physician Accoucheur,—

Ordinary Medical Officers.

J. Craufurd Dunlop, M.D., F.R.C.P.E. George Elder, M.B., C.M., M.R.C.P.E. Francis D. Boyd, M.D., F.R.C.P.E. James S. Fowler, M.B., M.R.C.S. Eng. James Cameron, M.D.

Physicians-Accoucheur,—Russell E. Wood, M.B., F.R.C.S.E., and T. J. Thyne, M.B., F.R.C.P.E.

Surgeons.

Diseases of the Ear and Throat, Mr I	Ernest C. Moore, M.B., L.R.C.S.E.
Diseases of the Eye,Mr	Alex. Macdonald, M.B. and C.M.
Diseases of the Lye,	Codell FRCSE
Vaccination, Dr (	P. P. C. D. F.
Diseases of Women,Dr 1	Brewis, F.R.U.F.E.

Diseases of Children,	Dr J. Thomson, F.R.C.P.E.
	Dr J. Batty Tuke jun., F.R.C.P.E.
	Dr J. Wheeler Dowden, F.R.C.S.E.
	Frederick Page, L.D.S.Ed.
Secretary to Medical Officers, -Dr	Cadell, F.R.C.S.E., 22 Ainslie Place.
	-Mr A. G. Bruce.

Instruction is given daily throughout the year on all cases attending the Dispensary, and Students are made familiar with the ordinary work of general practice by being required to visit patients at their own homes. Students are thus enabled to acquire special technical knowledge of all the above branches under skilled direction.

Dr Cadell gives a course of instruction in Vaccination under authority of the Local Government Board on Tuesday, at 12 noon. Fee, £1, 1s.

# EDINBURGH ROYAL MATERNITY and SIMPSON MEMORIAL HOSPITAL,

Lauriston Place.

Established 1843.

MEDICAL BOARD.

Consulting Physician, -- Dr John Moir, F.R.C.P.E., 52 Castle Street.

Consulting Surgeon, - Professor Annandale, F.R.C.S.E., 34 Charlotte Square.

Ordinary Obstetric Physicians.

Professor Simpson, F.R.C.P.E., 52 Queen Street.

Dr J. Halliday Croom, F.R.C.P. & S.E., 25 Charlotte Square.

Dr C. E. Underhill, F.R.C.P. & S.E., 8 Coates Crescent.

Dr Berry Hart, F.R.C.P.E., 29 Charlotte Square.

Assistant Physicians, —Dr A. H. Freeland Barbour, F.R.C.P.E., 4 Charlotte Square, and Dr R. Milne Murray, F.R.C.P.E., 11 Chester Street.

Twenty-eight Beds for year to 31st December 1895. In-patients, 310; Out-patients, 610.

# WESTERN DISPENSARY,

# Chalmers Institute, Ponton Street, Edinburgh.

Established 1870.

Open Daily from 3.45 to 4.45 p.m.

Open Daily Hom 0.40 to 4.40 p.m.
Consulting Physicians,
STAFF.
Physicians,
Surgeon,H. Alexis Thomson, M.D., B.Sc., F.R.C.S.E.
Diseases of Women,J. W. Ballantyne, M.D., F.R.C.P.E.
Diseases of the Ear and Throat,A. Logan Turner, M.D., F.R.C.S.E.
Diseases of the Eye,Fred. W. Mackay, M.D.
Assistant to the Specialists,J. M. Farquharson, M.B., C.M.
Practical Midwifery,J. W. Ballantyne, M.D., F.R.C.P.E.
Vaccinator,J. B. Buist, M.D., F.R.C.P.E.  Dispenser,
Dispenser, white.
SESSION 1896-97.
DEGLET TOTAL
In-door and Out-door Dispensary Practice—Daily.
In-door and Out-door Dispensary Practice—Daily.  Monday and Thursday,
In-door and Out-door Dispensary Practice—Daily.
In-door and Out-door Dispensary Practice—Daily.  Monday and Thursday,
In-door and Out-door Dispensary Practice—Daily.  Monday and Thursday,
In-door and Out-door Dispensary Practice—Daily.  Monday and Thursday,
In-door and Out-door Dispensary Practice—Daily.  Monday and Thursday,R. A. Fleming, M.D.  Tuesday and Friday,John Stevens, M.D.  Wednesday and Saturday,John Orr, M.D.  Diseases of the Throat and Ear—  Monday, 4 p.m.,A. Logan Turner, M.D.
In-door and Out-door Dispensary Practice—Daily.  Monday and Thursday,
In-door and Out-door Dispensary Practice—Daily.  Monday and Thursday,
In-door and Out-door Dispensary Practice—Daily.  Monday and Thursday,
In-door and Out-door Dispensary Practice—Daily.  Monday and Thursday,
In-door and Out-door Dispensary Practice—Daily.  Monday and Thursday,
In-door and Out-door Dispensary Practice—Daily.  Monday and Thursday,
In-door and Out-door Dispensary Practice—Daily.  Monday and Thursday,

# EDINBURGH PROVIDENT DISPENSARY.

Marshall Street, Nicolson Square.

Established 1878.

CONSULTING PHYSICIAN—Andrew Smart, M.D., LL.D., F.R.C.P.E.

CONSULTING SURGEONS.

Joseph Bell, M.D., F.R.C.S.E., and C. W. Cathcart, M.B., F.R.C.S.E.

ACTING MEDICAL OFFICERS.

George Thyne, M.B., C.M.

J. G. Cattanach, M.B., C.M.

Douglas C. Watson, M.B., C.M.

Diseases of Women-Tuesdays and Fridays, 4.30 p.m.

D. Berry Hart, M.D., F.R.C.P.E.

R. Milne Murray, M.B., F.R.C.P.E.

W. Fraser Wright, M.B., C.M.

R. J. E. Young, M.D., C.M.

W. Basil Orr, M.D., C.M.

Diseases of the Eye-

George Mackay, M.D., F.R.C.S.E.

Diseases of the Skin-

Norman Walker, M.D., F.R.C.P.E.

Diseases of the Ear and Throat-

R. M'Kenzie Johnston, M.D., F.R.C.S.E.

Practical Materia Medica, with Pharmacy-

10 to 12, 2 to 4, and 7 to 8.

Out-Door Dispensary Practice, 3 p.m., and Practical Midwifery, daily.

Vaccination - Tuesdays and Fridays, 1 p.m.-

A. J. Park, M.B., C.M.

Out-Patient Department and Practical Midwifery-

A. J. Park, M.B. C.M.

Tutorial Classes for the Universities' and Royal Colleges of Surgeons' and Physicians' Examinations are conducted by qualified Tutors.

During the year 1895 nearly 8000 patients were attended to at the Dispensary and at their own homes—representing about 50,000 visits and consultations, including 210 Midwifery patients.

Cliniques are held daily by the Acting Medical Staff, from 3 to 4 p.m.

# ROYAL EDINBURGH HOSPITAL FOR SICK CHILDREN.

9 Sciennes Road and Sylvan Place.

Established 1860.

Consulting Physicians.

George W. Balfour, M.D., LL.D., F.R.C.P.E.
R. Peel Ritchie, M.D., F.R.C.P.E.

Prof. Sir T. Grainger Stewart, M.D., F.R.C.P.E.

Consulting Surgeon.

Professor Annandale, F.R.C.S.E., F.R.C.S.Eng. (Hon.)

STAFF.

PHYSICIANS.

James Carmichael, M.D., F.R.C.P.E. John Playfair, M.B., F.R.C.P.E. T. M. Burn-Murdoch, M.B., C.M.

SURGEON.

Joseph Bell, M.D., F.R.C.S.E.

ASSISTANT SURGEON.

Harold J. Stiles, M.B., F.R.C.S.E.

OPHTHALMIC SURGEON.

D. Argyll Robertson, M.D., LL.D., F.R.C.S.E.

SURGEON-DENTIST.

John Smith, M.D., LL.D., F.R.C.S.E.

PATHOLOGIST.

Alexander Bruce, M.D., F.R.C.P.E.

EXTRA PHYSICIANS.

G. H. Melville Dunlop, M.D., F.R.C.P.E.

John Thomson, M.D., F.R.C.P.E. A. S. Cumming, M.D., F.R.C.P.E.

RESIDENT PHYSICIANS.

Dr Hughes.

Dr Hutton.

The Hospital contains 84 beds, and the Dispensary is open daily from 11 a.m. to 12.30 p.m. Children are Vaccinated on Wednesdays and Saturdays from 10.45 to 11 a.m. The In-patients number about 700, and the Out-patients about 14,000 yearly.

Surgical and Medical Cliniques are held by Mr Joseph Bell, Mr Burn-Murdoch, Dr Carmichael, Dr Dunlop, and Dr Thomson.

# EDINBURGH EYE, EAR, AND THROAT INFIRMARY,

6 Cambridge Street, Lothian Road.

Established 1834.

Open, at 1 o'clock daily, for Out-door Patients for Eye Diseases; Mondays, Thursdays, and Saturdays, at 12 noon for Out-door Ear Patients.

Tuesdays and Fridays, at 4 p.m., for Out-door Throat Patients.

The Infirmary contains six beds in Male and Female Wards. Upwards of 2500 patients are treated annually. Students and Graduates may attend the Cliniques. Fee, £1, 1s. for three months.

CONSULTING SURGEON.

Dr Joseph Bell, F.R.C.S.E., 2 Melville Crescent.

SURGEONS.

Dr Kirk Duncanson, F.R.C.P.E., 22 Drumsheugh Gardens; Dr G. Hunter Mackenzie, 22 Heriot Row; Dr W. G. Sym, F.R.C.S.E., 50 Queen Street; Dr Alex. Black, F.R.C.P.E., 13 Howe Street, and Dr J. Malcolm Farquharson.

DENTAL SURGEON.

Mr G. W. Watson, L.D.S. Edin., 3 Walker Street.

# EDINBURGH DISPENSARY FOR SKIN DISEASES,

6 Drummond Street (Corner of Nicolson Street).

Established 1890.

Open on Mondays, Thursdays, and Saturdays, from 11 to 12 o'clock noon.

Hon. Medical Officer.
Stewart Stirling, M.D., F.R.C.S.E., 4 Coates Crescent.

#### 188 EDINBURGH DISPENSARY FOR SKIN DISEASES.

The Cliniques are held on the days mentioned above, when Students and Graduates have every opportunity of becoming familiar with the recognition and the practical treatment of diseases of the skin.

Fee for Three months' Course, £1, 1s.

# EDINBURGH MEDICAL MISSIONARY SOCIETY,

Established 1841.

# Dispensary, No. 39 Cowgate.

(LIVINGSTONE MEDICAL MISSIONARY MEMORIAL).

Consulting Physician-Byrom Bramwell, M.D., F.R.C.P.E.

Consulting Surgeon-Charles W. Cathcart, M.B., F.R.C.S.E., F.R.C.S.Eng.

Consulting Obstetrician-Charles E. Underhill, M.B., F.R.C.P.E., F.R.C.S.E.

Vaccination-

Mondays, 4 p.m...... J. B. Buist, M.D., F.R.C.P.E.

Diseases of Women-

Tuesdays and Thursdays, 3.30 p.m., A. H. F. Barbour, M.D., F.R.C.P.E.

Diseases of Children-

Wednesdays, 2.30 p.m..... J. W. Ballantyne, M.D., F.R.C.P.E.

Surgical Cases-

Daily, 6 p.m. ..... T. M. Young.

Dispensary Pharmacy-

Daily, 4 p.m. and 6 p.m. ..... Mr A. K. Baxter.

[N.B.—This Course qualifies for the University and the Royal Colleges of Surgeons and Physicians of Edinburgh.]

Out-Door Visiting and Midwifery Practice-Patients seen daily, 3 p.m.

Mondays and Thursdays.... {E. F. Armour, M.B., C.M. Dawson Turner, M.D., F.R.C.P.E.

Tuesdays and Fridays....... G. K. Paterson, M.B., C.M., F.R.C.P.E. J. M. Farquharson, M.B., C.M.

Wednesdays and Saturdays...T. Lawson, M.B., C.M.

Superintendent—E. Sargood Fry, M.B., C.M. Resident Physician—T. M. Young, M.B., C.M.

The average number of Out-door Patients is over 10,100.

# CITY HOSPITAL,

## Infirmary Street,

FOR THE TREATMENT OF INFECTIOUS DISEASES UNDER THE PUBLIC HEALTH ACT.

Consulting Physician—Dr Claud Muirhead, F.R.C.P.E. Medical Superintendent—Dr Claude B. Ker. Assistant Resident Medical Officer—Dr Dickson.

A Course of Instruction in Infectious Diseases will be given in the Hospital, which contains 300 beds, during the Winter and Summer Sessions, which will qualify for the University of Edinburgh and the Triple Qualification Board.

Further particulars may be obtained from the Medical Superin-

tendent at the Hospital.

# EYE DISPENSARY OF EDINBURGH,

31 Chambers Street.

Instituted in 1822.

SURGEONS.

Mr Geo. A. Berry, M.B., F.R.C.S.E., and Dr T. F. S. Caverhill, F.R.C.P.E.

ASSISTANT SURGEON.

Dr George Mackay, F.R.C.S.E.

Hours—1 till 2 on Mondays, Wednesdays, and Fridays. 1500 Patients annually.

# CHURCH OF SCOTLAND DEACONESS HOSPITAL,

142 Pleasance.

Consulting Physician—Claud Muirhead, M.D., F.R.C.P.E.
Consulting Surgeon—John Duncan, M.D., LL.D., F.R.C.S.E.
Ordinary Physician—G. A. Gibson, M.D., D.Sc., F.R.C.P.E.
Ordinary Surgeon—H. Alexis Thomson, M.D., B.Sc., F.R.C.S.E.
Assistant Physician—Ralph Stockman, M.D., F.R.C.P.E.

# 190 CHURCH OF SCOTLAND DEACONESS HOSPITAL.

Astistant Surgeon—Harold J. Stiles, M.B., F.R.C.S.E.

Extra Physician for Diseases of Women—F. W. N. Haultain, M.D., F.R.C.P.E.

Extra Surgeon for Diseases of the Eye—Geo. Mackay, M.D., F.R.C.S.E.

Extra Surgeon for Diseases of the Ear and Throat—A. Logan Turner,

M.D., F.R.C.S.E.

House Physician and Surgeon—J. G. Cattanach, M.B., C.M.
The Hospital contains 24 beds.

# EDINBURGH HOSPITAL and DISPEN-SARY for WOMEN and CHILDREN,

6 Grove Street, Fountainbridge.

Established 1878.

Consulting Staff—P. Heron Watson, M.D., LL.D., F.R.C.S.E., G. W. Balfour, M.D., LL.D., F.R.C.P.E., R. Peel Ritchie, M.D., F.R.C.P.E., C. W. Cathcart, M.B., F.R.C.S.Ed. and Eng.,

Attending Medical Officer—Dr Sophia Jex-Blake, M.K.Q.C.P.Irel. Resident Medical Officer—Miss Eliz. Henderson, L.R.C.P. & S.E.

The Cottage Hospital was opened in 1885, and contains 6 beds. The Dispensary is open on Tuesdays and Fridays from 9.30 to 10.30 a.m. under the charge of Dr Jex-Blake; and on Mondays and Thursdays at same hour, under charge of the Resident Medical Officer.

In-patients over 40. Out-patients over 1200.

# VICTORIA HOSPITAL FOR CONSUMP-TION and DISEASES of the CHEST, CRAIGLEITH.

Out-Door Department, 26 Lauriston Place.

Established 1887.

Honorary Physicians—R. W. Philip, M.D., F.R.C.P.E., and Ralph Stockman, M.D., F.R.C.P.E. Honorary Surgeon—David Wallace, M.B., C.M., F.R.C.S.E.

The Hospital contains 15 beds. In-patients 100, out-patients 800 annually.

# EDUCATIONAL INSTITUTE OF SCOTLAND.

Preliminary Medical Examinations of the Royal Colleges of Surgeons and Physicians of Edinburgh, and of the Faculty of Physicians and Surgeons, Glasgow.

I. The General Medical Council, by Resolution passed on 2d June 1891, recognised the "Special Medical Student's Preliminary Examination" conducted by the Educational Institute of Scotland, as satisfying all the conditions required by the Council.

II. The Educational Institute holds Examinations in Edinburgh and in Glasgow simultaneously, three times in the year.

- III. In 1897 the following will be the subjects of Examination:-
- A. Compulsory Subjects, in which every Candidate must pass.
  - 1. English, including Dictation, Composition, Parsing, and Derivation (The Parsing and Derivation will be taken from Milton's L'Allegro.)
  - 2. Latin: Grammar; Translation into English from Cæsar de Bello Gallico, Book III., and Virgil, Æneid, Book II., Lines 1-401), and translation of easy passages, not taken from specified Authors.
  - 3. Mathematics, including :-
    - (a) ARITHMETIC: The Common Rules and Vulgar and Decimal Fractions.
    - (b) ALGEBRA: Up to and including Simple Equations.
    - (c) Geometry: Euclid, Books I .- III., with easy Deductions.

# B. One of the following Optional Subjects :-

- (a) Greek: Grammar; Translation from Xenophon, Anabasis, Book II. Derivation of English words from Greek.
- (b) FRENCH: Voltaire's Histoire de Charles XII., Books I.-IV., inclusive. Parsing and translation of simple sentences from English into French.
- (c) German: Schiller's Der Neffe als Onkel. Parsing and translation of simple sentences from English into German.

- (d) ITALIAN.
- (e) ANY OTHER MODERN LANGUAGE.

(Candidates who profess Italian or any other Modern Language will be required to submit to the Examiners an adequate profession.)

(f) Logic: Jevons' Logic: -Lessons, I.-VI.; VIII.-X.; XII.-XXI.; XXVII.-XXXI.

The compulsory and optional subjects must all be passed at one examination; but Candidates who have passed in one or more subjects prior to 1st January 1892 will be required simply to complete the remaining subjects.

Defective Spelling, which will be judged by an examination of all the Papers worked by the Candidate, will of itself involve Failure.

IV. Examinations will be held in the Oddfellows' Hall, Forrest Road, Edinburgh, and in the Free Church Training College, Cowcaddens Street, Glasgow, on the following days, beginning each day at 11 a.m.:—

1896.

October 1st-Thursday, ... English and Latin.

, 2d-Friday, ... Arithmetic and Algebra.

" 3d-Saturday, ... Geometry, and one Optional Subject.

1897.

April 1st-Thursday, ... English and Latin.

" 2d-Friday, ... Arithmetic and Algebra.

.. 3d\_Saturday ... Geometry, and one Optional Subject.

July 1st-Thursday, ... English and Latin.

.. 2d-Friday, ... Arithmetic and Algebra.

., 3d-Saturday, ... Geometry, and one Optional Subject.

Each Candidate shall pay a Fee of One Pound previous to the Examination. Stamps cannot be received in payment of Fees, and Cheques must be drawn to cover expense of cashing. Please to observe that a Cheque on a private account cannot be received, as it is worth nothing till paid by the Bankers on whom it is drawn.

Candidates are required to give in the forms (see Part V., Par. 2), and pay their Fees only to Alexander Mackay, Esq., LL.D., 40 Princes Street, Edinburgh, not *later* than—

Saturday, 26th September 1896. Saturday, 27th March 1897. Saturday, 26th June 1897.

These dates apply to all Candidates, whether sending Fee by Post or otherwise. Fees may be sent by Post-Office Order, made payable to Alexander Mackay, Esq., LL.D., 40 Princes Street, Edinburgh, or by Postal Order to the same.

V. The Examinations will be conducted according to the following Regulations:—

- The Competence of the Candidate will be ascertained by means of Written Exercises.
- Each Candidate must fill up a Form, giving his Name, place of Birth, and an Address that will find him by Post, distinctly written on it, and specifying the Optional Subject in which he wishes to be examined.
- 3. The Exercises on each of the Subjects must, in every case, be written on separate papers, and the Candidate must attach his signature to each sheet of his written paper before giving it to those who superintend the Examination.
- 4. Books must not be employed, nor any assistance be given by one Candidate to another, during the Examination. Those who violate this rule shall forfeit their right to a Certificate.
- The decision of the Examiners will be intimated to each Candidate as soon as possible. Those who pass the Examination will receive Certificates to that effect.

VI. A Certificate of having passed all the required Subjects of the above examination entitles the possessor, on commencing Medical Study, to be enrolled as a Medical Student in the form required by the Regulations of the General Medical Council, or, after the necessary class attendances, to present himself for his First Professional Examination as a Veterinary Student.

N.B.—An intending Veterinary Surgeon only requires to pass his Preliminary Examination before his First Professional Examination, and not before entering College.

All communications regarding these Examinations to be addressed to Thomas Morrison, Esq., LL.D., Secretary to the Board of Examiners, Free Church Training College, Glasgow, or Alexander Mackay, Esq., LL.D., 40 Princes Street, Edinburgh.

# Medical Preliminary Examinations.

2d July 1896.

#### ENGLISH.

(N.B.—Every question must be answered.)

1. Dictation.

2. Parse each word in :-

"Find out some uncouth cell

Where brooding darkness spreads his jealous wings."

3. Derive:—forlorn, uncouth, jealous, yclep'd, buxom, laughter, window, savoury, hamlet, fail.

4. Remark on the construction of the following sentences:

(a) Having had considerable experience in this kind of work, the reader may rely on the truth of the following statements.

(b) Three-fourths of the rod were painted black.

(c) Every officer and every clergyman is a gentleman.

(d) Transitive verbs only have a passive voice.

(e) They can confidently recommend him to whom such services as his may be required.

5. Write an essay (to occupy at least a page) on one of the following subjects:—

"The pen is mightier than the sword."

Recent advances in science.

The story of one of Shakespeare's plays.

#### LATIN.

#### I.—GRAMMAR.

1. Decline quisque pervicax vir.

2. Give genitive, gender, and meaning of :—onus, iter, exercitus, salus, pes, portus, robur, obses.

Compare:—timidus, alacer, longe, crudelis, similis.
 Conjugate:—contendo, ago, peto, cognosco, adorior, pergo.

- 5. Translate into Latin :—
  - (a) I was persuaded to do this.

(b) He expects to see you.

(c) This young man is twenty years of age.

(d) He says that the messenger made no mistake.(e) Late at night the children returned home.

#### II.—CÆSAR.

### Translate, into English :-

Prima luce productis omnibus copiis, duplici acie instituta, auxiliis in mediam aciem conjectis, quid hostes consilii caperent exspectabat. Illi etsi propter multitudinem et veterem belli gloriam paucitatemque nostrorum se tuto dimicaturos existimabant, tamen tutius esse arbitrabantur, obsessis viis, commeatu intercluso, sine ullo vulnere victoria potiri; et, si propter inopiam rei frumentariae Romani sese recipere coepissent, impeditos in agmine et sub sarcinis infirmiore animo adoriri cogitabant. Hoc consilio probato ab ducibus, productis Romanorum copiis, sese castris tenebant.

Parse words in italics, explaining cases and moods.

#### III.—VIRGIL.

### Translate into English :-

Jamque arva tenebant
Ardentesque oculos suffecti sanguine et igni
Sibila lambebant linguis vibrantibus ora.
Diffugimus visu exsangues: illi agmine certo
Laocoonta petunt. Et primum parva duorum
Corpora natorum serpens amplexus uterque
Implicat, et miseros morsu depascitur artus;
Post, ipsum auxilio subeuntem ac tela ferentem
Corripiunt, spirisque ligant ingentibus; et jam
Bis medium amplexi, bis collo squamea circum
Terga dati, superant capite et cervicibus altis.

Parse words in italics.

#### IV .- UNSEEN.

# Translate into English :--

Omnia repente mutaverant imperatore mutato; alia spes, alius animus hominum, fortuna quoque alia urbis videri. Omnium primum in eos, qui a Veis in illo pavore fugerant, more militari animadvertit effecitque, ne hostis maxime timendus militi esset. Deinde indicto dilectu in diem certam ipse interim Veios ad confirmandos militum animos intercurrit; inde Romam ad scribendum novum exercitum redit nullo detrectante militiam.

3d July 1896.

#### ARITHMETIC.

(The work of each question must be given in full.)

- 1. From two millions two hundred thousand and two take the sum of four hundred and eighty-six thousand nine hundred and nine, eight hundred thousand and eight, one hundred and one thousand and eleven, ten thousand and one hundred and ten. What number must I add to the remainder to make the amount one million.
- 2. Find the sum in £ s. d. of 10,000 guineas, 5000 half-sovereigns, 1000 half-crowns, and 2400 halfpence, and bring the amount to florins.
- 3. If a human heart expel 5 oz. of blood at each beat, and 28,000 lbs. in the course of a day, how many beats would it take in a life of 72 years long, each consisting 3654 days?

$$\text{4. Simplify } \frac{9\frac{1}{2} \div 6\frac{1}{3}}{9\frac{1}{2} - 6\frac{1}{3}} \div \frac{16\frac{7}{8} \div 11\frac{1}{4}}{16\frac{7}{8} + 11\frac{1}{4}} \times 17\frac{9}{14},$$

5. (a) Multiply '003125 by '48, and divide the result by ·0000125. (b) Reduce 1.725 of 5s. 6d. to the decimal of 2s. 6d.

If 124.25 francs are equivalent to £5, 1s. 8d., find the gain

on £56.375 if exchanged for 1360 francs.

 A tradesman who makes 15 per cent on his capital, makes a profit three times as great as another who makes 12 per cent in the same time; they unite their capital, and the joint capital is £867, 4s. 3d. What amount did each contribute?

8. In a mile race A can beat B by 80 yards and C by 20 seconds, and B can beat C by 5 seconds. In what time can A run

a mile?

#### ALGEBRA.

1. Add  $3(a+b-c)-4(2b-3a-c)+5\{a-2(b+3c)\}$  and from the sum subtract 2(3c - 4b - 5a).

2. Divide the product of  $x^2 + y^2 - z^2 + 2xy$  and x + y + z by

x+y-z.

3. If a = 3, b = 2, c = 1, find the numerical value of  $(b+c-a)\{4a-3b(a^2+b^2)\}-\{a-(b-c)\}[4a-\{3b(c-a)+(b+c)^2\}].$ 

4. Simplify 
$$\frac{m^4 - n^4}{(m-n)^2} \times \frac{m-n}{m^2 + mn} \times \frac{m}{m^2 + n^2}$$
.

Resolve into factors  $8x^3 + 64$ ,  $2x^2 - x - 6$ , and  $(x + 2y - z)^2 - (x - y + 2z)^2$ .

6. If 
$$\frac{2x+3}{5} - \frac{6x+22}{15} = \frac{3x+17}{5(1-x)}$$
, find value of  $x$ .

7. Given 
$$\begin{cases} x+y = \frac{28-x}{9} \\ \frac{2x-y}{5} + \frac{x-3}{7} + \frac{10}{35} = 0 \end{cases}$$
 find  $x$  and  $y$ .

8. A floor, of which the length exceeds the breadth by 2 feet, requires the same amount of carpet as another floor of which the length is 4 feet more and the breadth 3 feet less than the former. Find the dimensions of the first floor.

9. A man buys 100 apples and 240 pears for 15s. 5d. Next day he buys, at the same rate, 180 apples and 150 pears for 12s. 1d.

Find the price of apples and of pears per doz.

4th July 1896.

#### GEOMETRY.

## Euclid, Books I., II., and III.

1. (a) To draw a straight line at right angles to a given straight line from a given point in the same.

(b) Define the different kinds of angles, and show that on the same side of a line AB only one straight line at right angles to AB

can be drawn from a point C in the line.

2. (a) If a straight line falling on two other straight lines make the exterior angle equal to the interior and opposite angle upon the same side, or make the two interior angles upon the same side together equal to two right angles, the two straight lines shall be parallel.

(b) Explain what ambiguity might arise by changing the word "or" into "and" in the above enunciation; and prove that the

opposite sides of a square are parallel.

3. (a) If a straight line be divided into two equal and also into two unequal parts, the squares of the unequal parts are together double of the square of half the line and of the square of the line between the points of section.

(b) Define a rhomboid; and compare and contrast (1) a square

and a rectangle, and (2) a square and a rhombus.

4. (a) If there be two straight lines, one of which is divided into any number of parts, the rectangle contained by the two lines is equal to the rectangles contained by the undivided line and the several parts of the divided line.

(b) Illustrate by an example that the principle of the above enunciation applies to numbers. When is a line said to be divided

in medial section?

5. (a) The straight line drawn at right angles to a diameter of a circle, through its extremity, falls without the circle; but any other straight line drawn through that point cuts the circle.

(b) Define a segment and similar segments; and prove that equal chords in a circle subtend equal angles at the centre.

6. (a) If a straight line touch a circle, a straight line drawn from the point of contact, at right angles to the tangent, passes through the centre.

(b) If two circles cut each other, the tangents drawn to them from any point in the common chord produced are equal.

#### GREEK.

No Candidate will be allowed to pass who does not translate fairly well from Greek into English, and who cannot parse accurately the words selected from the passage set.

### 1. Translate into English :-

## (Xenophon, Anabasis, Book II.)

Ταῦτα εἰπῶν ἔδοξε τῷ Κλεάρχω ἀληθη λέγειν καὶ εἶπεν, Οὐκοῦν, ἔφη, οἴτινες τοιούτων ἡμῖν εἰς Φιλίαν ὑπαρχόντων πειρῶνται διαβάλλοντες ποιῆσαι πολεμίους ἡμᾶς ἄξιοί εἰσι τὰ ἔσχατα παθεῖν; Καὶ ἐγὼ μέν γε, ἔφη ὁ ΤισσαΦέρνης, εἰ βούλεσθέ μοι οἴ τε στρατηγοὶ καὶ οἱ λοχαγοὶ ἐλθεῖν, ἐν τῷ ἐμΦανεῖ λέξω τοὺς πρὸς ἐμέ λέγοντας ὡς σὺ ἐμοὶ ἐπιβουλεύεις καὶ τῆ σύν ἐμοὶ στρατιᾶ. Ἐγὼ δέ, ἔφη ὁ Κλέαρχος, ἄξω πάντας, καὶ σοὶ αὐ δηλώσω ὅθεν ἐγὼ περὶ σοῦ ἀκούω. Ἐκ τούτων δὴ τῶν λόγων ὁ ΤισσαΦέρνης ΦιλοΦρονούμενος τότε μὲν μένειν τε αὐτὸν ἐκέλευσε καὶ σύνδειπνον ἐποιήσατο. Τῆ δὲ ὑστεραία ὁ Κλέαρχος ἐλθων ἐπὶ τὸ στρατόπεδον δῆλός τὰ ἡν πάνυ Φιλικῶς οἰόμενος διακεῖσθαι τῷ ΤισσαΦέρνει καὶ ἄ ἔλεγεν ἐκεῖνος ἀπήγγελλεν, ἔφη τε χρῆναι ἱέναι παρὰ ΤισσαΦέρνει καὶ ἄ ἔλεγεν ἐκεῖνος ἀπήγγελλεν, ἔφη τε χρῆναι ἱέναι παρὰ ΤισσαΦέρνει καὶ α ἔλεγεν ἐκεῖνος ἀπήγγελλεν, ἔφη τε χρῆναι ἱέναι παρὰ ΤισσαΦέρνην οῦς ἐκέλευσε, καὶ οῖ ἀν ἐλεγχθῶσι διαβάλλοντες τῶν Ἑλλήνων, ὡς προδότας αὐτοὺς καὶ κακόνους τοῖς Ἑλλησιν ὅντας τιμωορηθηναι.

2. Parse fully, and give the principal parts of the following verbs:—ἔδοξε, λέγειν, πειρωνται, παθεῖν, βούλεσθε, ἐκέλευσε, ἐποιήσατο.

3. Give a list of the more common prepositions used in Greek, and state the meaning of each, and the case or cases which it governs.

4. Write in Greek:—Xenophon thought the enemy would cross the river. The army marched eight miles and encamped. The Greeks fight with shield and sword, but the Persians prefer the bow and the spear. In the days of Cyrus, his brother Artaxerxes ruled in Babylon.

#### FRENCH.

# 1. Translate into English:-

Les physionomies des deux enfants ne différaient pas moins que leur costume. Celle du premier était délicate et distinguée; l'œil d'un bleu limpide, la peau fine, les lèvres souriantes, lui donnaient un charme d'innocence et de bonheur; les traits du second, au contraire, avaient une certaine rudesse; le regard était vif et

mobile, le teint bruni, la bouche moins riante que narquoise; tout indiquait l'intelligence aiguisée par une précoce expérience; il marchait avec confiance au milieu des rues que les voitures sillonnaient, et suivant sans hésitation leurs mille détours. J'appris de lui qu'il apportait tous les jours le dîner de son père, alors occupé sur la rive gauche de la Seine ; la responsabilité dont il était chargé l'avait rendu attentif et prudent. Il avait recu ces dures mais puissantes leçons de la nécessité que rien n'égale ni ne remplace. Malheureusement, les besoins du pauvre ménage l'avaient forcé à négliger l'école, et il paraissait le regretter, car souvent il s'arrêtait devant les gravures et demandait à son compagnon de lui en lire les inscriptions.

2. Translate into French:

Has not Rome had kings, consuls, and emperors? A good education is the best fortune that a father can leave to his children. We are never happier than when we see you happy. Your cousins are so gentle, so kind, and so amiable, that they are beloved by everybody. It has been very fine weather the whole summer. We saw his sisters gathering flowers in our neighbour's garden. Men ought to obey the laws of justice, which have been made (établir) for the happiness of society.

3. Parse—souriantes, riante, dont, reçu.

4. Which class of verbs govern the subjunctive? Form one or two sentences.

5. Write out in full the present indicative of croire and croître, of s'asseoir and mouvoir, of partir and fuir.

#### GERMAN.

(Marks will be deducted for careless writing.)

1. Translate into English :-

Dorsigny. Es ist ein rechter Jammer. Dieser junge Mann war, was die meisten jungen Leute sind, so ein kleiner Wüstling. Einen Abend bei einem Balle fiel's ihm ein, einem artigen hübschen Mädchen den Hof zu machen; ein Nebenbuhler mischte sich drein und erlaubte sich beleidigende Scherze. Der junge Lormeuil, lebhaft, aufbrausend, wie man es mit zwanzig Jahren ist, nahm das übel; zum Unglück war er an einen Raufer von Profession gerathen, der sich nie schlägt, ohne seinen Mann-zu tödten. Und diese böse Gewohnheit behielt auch jetzt die Oberhand über die Geschicklichkeit seines Gegners; der Sohn meines armen Freundes blieb auf dem Platz, mit drei tödtlichen-Stichen im Leibe.

Fr. v. Dorsigny. Barmherziger Himmel! Was muss der Vater

dabei gelitten haben!

2. Translate into German :-

You will find my watch in my room, on the table. Will you

come with me? Fulfil your duties towards God, towards your parents, and towards your country. My brother has gone to Paris with my father. Printing was not invented by a man of letters, nor gunpowder by a military man. You will be rewarded, provided you deserve it.

3. Which conjunctions govern the subjunctive in German?

Form a sentence with each.

4. Write out the subjunctive of the present tense of sein, können, and wollen; and also the indicative of the future, passive voice, of erwarten.

5. Parse:—fiel's, nahm, schlägt, behielt, blieb, gelitten; and give the principal tenses of these verbs.

#### LOGIC.

Read whole paper before beginning to reply. An italicised "or" indicates an alternative.

1. State (1) the Nature, (2) the Province, and (3) the chief Divisions of Logic.

2. Define and give examples of (1) Terms, (2) Propositions,

and (3) Syllogisms.

3. Define Experience, and distinguish between (1) Intuition, (2) Observation, and (3) Experiment.

4. How does Logic enable us to "Rule by obeying Nature's

Powers" (Tennyson).

- 5. What is the difference between the Analysis of (1) an object, and (2) a conception, using air, coal, or flower to illustrate your statement.
- 6. In how many ways are propositions arranged to form Valid Syllogisms. Criticise and figure the following:—" No planets are fixed stars; some spherical bodies are planets; ... Some spherical bodies are not fixed stars."
- 7. Quote the "Canons of Inference" by Categorical Syllogisms, and shew how these are deduced from the *Dictum de omni et nullo*; or, Quote the "Canons of Method" in Inductive Inference, and shew how these furnish premises for Syllogisms.

8. Distinguish by Definition what is meant by Arms in physi-

ology, heraldry, warfare, geography, mechanics, &c.

9. Criticise the following definition:—"Multiplication is the doing of the same operations on the *Multiplicand* as has been done on Unity to produce the Multiplier"; and shew by either of the examples (1)  $397 \times 18$ , or (2) £28, 13s. 4d. × 17, that your criticism is right.

10. Discuss, affirmatively or negatively, either of the propositions:—(1) "Circumstances cannot lie"; (2) "Genius is cramped by

conforming to rules."

# SUCCESSFUL CANDIDATES— Year 1895-96.

(NAMES AND PLACES OF STUDY.)

Triple Qualification of Royal College of Physicians, Edinburgh, Royal College of Surgeons, Edinburgh, and Faculty of Physicians and Surgeons, Glasgow.

#### FIRST EXAMINATION.

**OCTOBER** 1895.

Four Years' Course.

Benjamin Richard Roberts, Galway
James Barkley, Belfast
David Wilson, Belfast
Thomas Henry O'Reily, Edinburgh
John Farmer, Glasgow
Edward Rigby Stephenson Hale,
Edinburgh
William Christopher Brown, Manchester
John Joseph Minihan, Cork (with
distinction)
Ellen Maud Wood, Sydney
James Carruthers, Glasgow.

#### Five Years' Course.

Alec Boswell Timms, Edinburgh
Joseph Fulton, Belfast
Frank Hannah, Liverpool
Michael King, Edinburgh
William Archibald Pitt, Edinburgh
Owen Green, Dublin (with distinction)
Ernest Farrant Fox, Edinburgh
William Joseph O'Sullivan, Cork
Geo. Brownlie M'Kendrick, Glasow
Timothy More O'Driscoll, Glasgow
Allan Douglas Cameron, Edinburgh
John England Kerr, Edinburgh
Mary Jane D'Vaz, London
John Allen Scotland, Edinburgh

William Pattullo, Edinburgh William Hewley Wharton, Edinburgh

#### JANUARY 1896.

Four Years' Course.

Alfred John Wm. Noble, Aberdeen
William O'Sullivan, Cork
Joseph Horgan
Francis Carter, Edinburgh and Liverpool
Alfred Sigismond Powell, Edinburgh
Eldred Ladyman, Manchester
William Mackirdy, Edinburgh
Edward Bennett, Manchester
James MacRae, Edinburgh
George Robert Harland, Newcastleon-Tyne
Timothy Murphy, Cork

#### Five Years' Course.

Edith Neild, Edinburgh School of
Medicine for Women
Robert Jackson Mackay, Edinburgh
Charles R. White, Edinburgh
Geo. H. Fullarton Graves, Glasgow
Edward P. Haythornwaite, Edinburgh
David Coffey, Galway
John Blunt Swinden, Edinburgh
William Arthur Dawson, Cork
Agnes M'Lean Black, Edinburgh
School of Medicine for Women

James Patrick Lavery, Edinburgh Lizzie Beatty, Belfast

#### APRIL 1896.

#### Four Years' Course.

Frederic Lilley, Dublin
Louise Blanche Smith, Calcutta and
Edinburgh
William Joseph O'Farrell, Dublin
James Dodwell Richey, Dublin
Wesley John Jenner, Edinburgh
Walter Latham,
Wm. E. W. Strickland, Edinburgh
John Ernest Broadbent, Manchester
Frederick George Henderson, India
Louis Robert St Romaine, India
Alexander Elmslie Crabbe, Aberdeen
John Richard Dodds, Edinburgh
Charles Knapp Darnell, Edinburgh

#### Five Years' Course.

Wm. Thomas Finlayson, Edinburgh Wm. H. Eden Brand, Edinburgh William Lock, Edinburgh James Alex. Chisholm, Edinburgh Wm. Mitchell Browne. Edinburgh Emery Jones, Edinburgh Harold (with distinction) Wm. Maxwell Mather, Glasgow Francis Wilfred Harlin, Melbourne Alice Muriel M'Farlane, Edinburgh Chas. Stephenson Oliver, Edinburgh Francis E. Woodroffe, Edinburgh Robert M'Laren, Edinburgh Roger Sholton Milburn, Edinburgh Francis Peake Maitland, Edinburgh John Campbell Douglas, Glasgow John Blair Conner, Glasgow William Ogilvy, Glasgow Charles M'Donnell, Edinburgh Edward Michael M'Swiney, Cork John Thomas Bradley, Belfast Percy J. Bateman, Cambridge Gerald Spencer Coghlan, Edinburgh John George Grant, Glasgow Daniel Michael Donovan, Cork

#### JULY 1896.

#### Four Years' Course.

Richard M. Hay, Newcastle-on-Tyne Wm. M. S. Robinson, Melbourne Wm. Edward MacManus, Dublin Lydia Prio Datt, Edinburgh Robert Joceln Meade, Cork Amy Norah De Souza, India William George Fee, Galway
William Roger Jones, Edinburgh
Albert W. Swettenham, Edinburgh
Hamilton Joseph Bell, Dublin
Louise Fox, India
Alfred Newton Davies, Birmingham
Andrew Dougall, Glasgow
Thomas Edmonston Saxby, Edinburgh
Herbert Vaughan Craster, Birmingham
Thomas Warren Colthurst,
George Gray Wilson, Dublin
David Richard Edwards, London

#### Five Years' Course.

Arthur Forsyth Bowen, Edinburgh Wm. Owen Prichard, Edinburgh and North Wales John Thomson Malloch, Edinburgh Winifred Muirhead, Edinburgh George Day, Edinburgh Alexander Sharp, Edinburgh Henry Martyn Newton, Edinburgh William Burns, Belfast Mary Brice Carr, Edinburgh John Joseph Dunne, Dublin William Welsh, Edinburgh Chas. R. Sutherland, Edinburgh James M'Murray, Galway David Scott Erskine Macnab James Noble, Glasgow David Crombie, Glasgow Percival Horace Rainbird, Glasgow Thomas M'Donagh, Galway Albert Edward Ward, Glasgow Joseph Bernard O'Mahony, Cork Thomas Blane Adam, Glasgow John Bell Walker, Glasgow John Tudor Griffiths, Glasgow Mary Emma Potter, Glasgow George Evans, Glasgow Thomas Little, Glasgow Robert Elwell Naish, Giasgow Harry Miller Roberts, Glasgow Albert Sophron Sieger, Glasgow William John Buckmaster, Cork John Ebenezer M'Intyre, Glasgow Stuart Jackson Farries, Glasgow Alexander Scanlan, Glasgow Alice Miles, Glasgow Thomas Henderson, Glasgow David Fitzgibbon, Cork James Fowler Shon, Belfast Louis M'Sherry, Belfast Angus M'Innes, Glasgow Rupert E. Moorhead, Dundee Francis Audubon Gray, Edinburgh Aloysius Francis Fleming, Cork George Johnstone Campbell, Glasgow

#### SECOND EXAMINATION.

#### Остовек 1895.

Four Years' Course.

John Joseph Curtain, Cork Marshall Primes Rodgers, Edinburgh Robert Henry Munro, Glasgow Jean Sinclair Dobson Robertson, Edinburgh School of Medicine for Women

William Mangan, Dublin and Cork John Campbell Mackenzie, Edinburgh Oswald Lucas Appleton, Glasgow Samuel Howard Smith, Manchester and Edinburgh

William M'Harry, Belfast Paul Joseph Francis O'Sullivan, Cork Patrick Joseph Haydn Mulholland, Belfast

Thomas Joseph Enright, Cork William Campbell, Edinburgh Thomas Donovan, Cork Herbert Trouncer Wright, Edinburgh Richard Edward Russell, Cork and Edinburgh

Alexander Buchanan Hood, Glasgow Charles Edward Proctor, London and Edinburgh

Denis Riordan, Cork John James Sylvester Healy, Melbourne

Morris Frederick Horsley Gamble, Melbourne Charles Herbert Harris, Birmingham Edmund Frost, Edinburgh

Melville Gorman Wilkins, Madras Herbert William James Joseph Goodricke Cattell, Cork

#### Five Years' Course.

Walter Hibbert, Leeds
William John Morgan, Edinburgh
David Heron, Edinburgh
George Potts, Edinburgh
Harriette Frances Bailey, Edinburgh
Medical College for Women

#### JANUARY 1896.

Four Years' Course.

Maurice M'Sherry, Belfast Thomas Killips Greenfield, Belfast George Crofts Beamish, Cork and Edinburgh Robert Hamilton Fleming, Glasgow Robert Philip Graham, Glasgow Bertwine G. Roscoe, Manchester John R. Askew, Newcastle-on-Tyne Eldred Ladyman, Manchester John Kirkpatrick, Edinburgh and

Anthony J. Rencontre, Edinburgh Samuel David Clements, Galway Denis Nyhan, Cork Edward Rambant Kellett, Dublin John Henry O'Sullivan, Cork and

Edinburgh Thomas Harold Waddington, Leeds John Titus Newton, Birmingham Charles Herbert Thackrah, Leeds Robert S. Williams, Edinburgh and

Liverpool James Charles Bouchier-Hayes, Cork Percy A. Wedgwood, Edinburgh Clayton Simpson, Edinburgh

#### Five Years' Course.

Abraham Johannes Benjamin Albertyn, Edinburgh
John Tobin, Cork (with distinction)
Henry Fowler, Edinburgh
Thomas Neville, Cork
James Ross, Belfast
Charles John Greig, Edinburgh
Vaughan Bateson, Leeds
James Sharp Hamilton, Belfast and
Edinburgh

#### APRIL 1896.

Four Years' Course.

John Harris, Edinburgh
Frederick Ernest Shawe, Belfast
Joseph Stanislaus Gubbins, Dublin
Theodore A. W. Ogg, Aberdeen
Joseph Kennish, Edinburgh
John C. Pemberton, Edinburgh
Frank Parr Monckton, Bristol
Charles Fredk. Spinkes, Manchester
Robert Morrison Quin, Belfast
Tom J. Lumley, Newcastle-on-Tyne
Richard Evan Roberts, Glasgow
Frederic Lilley, Belfast
James Hamilton Stuart, Edinburgh
Mary Ann Handson, Paris and
London

John Boyd, Belfast Michael Louis Neylon, Edinburgh Farris Nassour Jaboor, Edinburgh John Graham Gibson, Glasgow and Edinburgh Montague Vaughan M'Kechnie, Durham and Edinburgh Ellis Owen Jones, Glasgow James Hamilton Fleming, Glasgow Christopher R. White, Edinburgh

### Five Years' Course. Pat. Coffey, Galway and Edinburgh

Henry James Clarke, Edinburgh

Cecil Charles Murison, Edinburgh

with distinction)

John Lewis M. Govan, Edinburgh

George William Hardie, Edinburgh (with distinction) Michael Sullivan, Edinburgh Frederick Patrick Walsh, Edinburgh John Arnold Petavel, Edinburgh Edith Neild, Edinburgh (with distinction) Hermann Aspinall, Liverpool John Herbert Gibbs, New Zealand Katharine C. Sampson, Edinburgh Henry Stewart Anderson, Belfast Alexander Macgregor, Glasgow William Hutton, Glasgow John Dick, Glasgow Robert Waller Jubb, Belfast Richard Staward, Glasgow James Moffat Inverarity, Glasgow James Dunlop, Glasgow William Carey, Glasgow Thomas Day Bird, Glasgow Harry Goodwin Ogilvie, Glasgow William James Aiken, Belfast

JULY 1896.

Edward Hartrick Harrison, Belfast

Four Years' Course.

Henry Nuttall, Edinburgh Wesley John Jenner, Edinburgh

James Thomas O'Connor, Cork

Morgan K. Quinlan, Dublin Ernest Hosking Birchall Richard M. Hay, Newcastle-on-Tyne Wm. Robert Murison, Edinburgh Benjamin Wade William O'Sullivan, Cork John Davies, Manchester John Elliott, Glasgow Griffiths Llewelyn Jones, Glasgow Edward Albert Kirkwood, Belfast George Robert Harland, Durham Hugh Owen Jones, Glasgow Frederick George Henderson, Bengal and Edinburgh Edward Athelstan Clark, Bristol Alexander Lawrie Brown, Glasgow John Farmer, Glasgow Thomas Henry O'Reilly, Edinburgh Thomas Spinks Ross, Belfast David Charles Rowlands, Edinburgh Walter Beck, Belfast Albert W. Swettenham, Edinburgh Harry Lowick Phelps, Bristol Alfred Newton Davies, Birmingham David Speid Clark Reid, Glasgow

Five Years' Course. Wm. Frederick Oliver, Edinburgh Anne Mercer Watson, Dundee (with distinction) Ernest Farrant Cox, Edinburgh Chas. Henry G. Lyall, Edinburgh Robert James Love, Galway and Edinburgh Robert Hugh R. M'Kean, Edinburgh George Frederick Stooke, Edinburgh (with distinction) John Joseph Dunne, Dublin John England Kerr, Edinburgh William Macfarlane Henry Arthur Marquis, Glasgow Jeannie Hamilton Traill, Edinburgh Sydney Joseph Smith, London John Thomson Kilpatrick Thomson, Glasgow Robert Stewart, Glasgow Alexander Johnston Wilson, Glasgow Alexander Fraser Jack, Glasgow

#### THIRD EXAMINATION.

OCTOBER 1895.

Five Years' Course.

John Gawler Murray, Edinburgh Ebenezer Crombie Macintosh, Georgina Catherine Hogg, Edinburgh Mary Ariel Stewart,

JANUARY 1896.

Five Years' Course.

James Murray, Edinburgh John St John Murphy, Cork Arthur Fletcher Jones, Edinburgh and Glasgow George Herbert A. Taylor, Glasgow Joseph Martin Donovan, Dublin Richard Francis Flood, Belfast and Edinburgh Georgina Collier, Belfast

APRIL 1896.

Five Years' Course.

Richard James Isaac, Edinburgh Gilbert Jamieson Meikle, Edinburgh Wm. Laidlaw Cribbes, Edinburgh Montague Rust, Edinburgh Edith Mary Paton, London Marcus Hill Babington, Edinburgh Andrew M'Credie, Glasgow James M'Glynn, Glasgow

JULY 1896.

Five Years' Course.

Rosina Jane Gillam, Edinburgh Mathilda Hetty G. Russell, London Gertrude Mary Hutton, Edinburgh Elsie Rosa C. Taylor, London Flora Rosina C. Wood, Edinburgh Wm. Shaw Soutar, Edinburgh Edmund Leonard Munn, Edinburgh Margaret G. C. Brodie, Edinburgh (with distinction) David Heron, Edinburgh James Hope, Edinburgh Donald Graham, Edinburgh Samuel Vernon Robinson, Glasgow Harold Chaffer, Glasgow Edgar Huss Sheldon, Glasgow James Robertson Riddell, Glasgow Vaughan Bateson, Harrogate

# FINAL EXAMINATION.

### Licentiates Admitted.

**OCTOBER** 1895.

Charles Arthur Francois, Glasgow John Booth Chadwick, Manchester Percival Bayley, Birmingham and Edinburgh Wagle Dwarkanath Shunker, Bombay Arthur Foulds Thomas, Edinburgh Mary Harmar, London Chas. Henry Benjamin Adams, Edinburgh, London, and Birmingham Mary Helen Cruickshank, London James Young, Belfast John Craven Glen, Glasgow John Robson Shotton, Leeds and Edinburgh

Samuel Fletcher Blakely, Edinburgh Narcissus Pinto, Bombay Frederic William Martin, Liverpool and London Thomas Gallacher, Glasgow James Barry, Dublin Gerald Rowley Leighton, Edinburgh James Louis Scott Sherlock, London Hospital Wilson Oswald Robert Lofthouse, M.D. and C.M., Kingston, Canada Annie Caroline Smith, Edinburgh School of Medicine for Women Josephine Cunin, M.D., C.M., Montreal Wm. Herbert Dixon, Guy's, London

Robert James Black, Belfast

Alfred Aldam Bartholomew, Edinburgh

David Alexander Porter, Belfast Pelham Wykesmith, St George's, London and Edinburgh

Wm. George James Graham, Bristol Edward Hugh Swan, Ceylon

Joseph Matson, Belfast Arthur George Kewley, Liverpool

William Hamilton, Belfast David John Duig, Dublin Vinayak Narayan Chitale, Bombay

Adam Lees, Glasgow Donald De Witt Quay, M.D., C.M.,

M'Gill University, Canada Henry Stratford O'Conor, Edinburgh Jacob Henry Abrahams, Madras John Hartley, Manchester

Frank Robert Byrne Quinn, Madras Robert Irvine, Belfast

Thomas Bruce Hewson, M.D., C.M., Toronto

Alexander MacGregor, Glasgow

George Fowler, Madras Fred. George Rock Grosett, M.D., C.M., Toronto

Rosa Turner, London Gertrude Keith, London George Cotton Henry, Edinburgh James Johnston, Belfast Robert Alleyn Bowen, Cork

William Robertson Forbes, Edinburgh William James Sturges-Davis, Edinburgh

Kaikhosru Edalji Master, Bombay Michael M'Manus, Galway

James George Mylan, Calcutta and Edinburgh

George O'Toole, Cork

Maurice Kochmann, M.D., Germany (with honours)

Henry Manning Pereira, Madras John O'Sullivan, Cork

Isabella Hardie Curr, Edinburgh School of Medicine for Women

Margaret Ferooza Macnaughton, Edinburgh School of Medicine for Women

Michael Luby, Dublin and Edinburgh John Findlay Stevenson, Glasgow Robert James Erskine, Belfast Edward Hugh Phillips, Leeds

Luis Cupertino Saldanha, Bombay and Edinburgh

Thomas Johnson Perkins, Dublin Jacob Vivour Pratt, London and Oxford

George Mason, Birmingham

#### JANUARY 1896.

Elizabeth Henderson, Edinburgh William Henry Rowthorn, Sheffield and Newcastle-on-Tyne Arthur James Troughton, Edinburgh Charles Graves, St Mary's, London Arthur Bishop Carey Orchard, Dublin Emilia Margaret Guthrie, London Richard Wolfendale, Edinburgh

Bryce Johnston Macaulay, Middlesex Hospital

Walter Pearson Manchester Martha Florence Armitage, London S. Hishmeh, Edinburgh and Glasgow David Alexander, Glasgow

Charlotte Susannah Vines, London

Samuel Robb, Dublin

Mrs Elizabeth Mary Hooper, London James Blewitt, Dublin and Edinburgh Henry Greaves, Manchester

Percy S. Kesteven, St Bartholomews Robert Wilbond, Belfast

Edwin Walter Scharenguivel, Ceylon Medical College

Percy Ridley Gange, University Col-

lege, London Herbert A. L. Banham, Sheffield

Edward Buller Hicks, Edinburgh and Newcastle-on-Tyne Joseph William Furey, Belfast

Daniel Urban Hanly, Cork and Edin-

Denis Hennessy, Cork and Edinburgh John Collingwood Thompson, New-castle-on-Tyne

Arthur Wellesley Ball, Edinburgh Annie Gillespie, Edinburgh Medical College for Women

Solomon Harold Richards, Edinburgh Joseph O'Meara, Cork and Edinburgh Walter Squibbs, Edinburgh J.E. Martin, Liverpooland Edinburgh

Thomas Aspinall, Manchester Andrew Morris Stewart, Edinburgh Eric Norham Scott, Guy's, London John Edmund O'Ryan, Dublin and

Edinburgh Thomas Canning Hunter, Glasgow Patrick Bernard Molony, Cork -

James Munce, Belfast Alexander Jason Hassard, Dublin Richard Lister Park, Edinburgh William Barclay Thomas, Glasgow James M'Allister Ramsay, Glasgow Timothy O'Callaghan, Cork

Hendrik Jan Van Brockhuizen, Edinburgh

Douglas Albert Robertson, Melbourne and Edinburgh Thomas Francis Elmes, Cork Henry Edward Birmingham, Dublin Thomas William Herbert Young, M.D., C.M., Toronto Thomas Matthew Donovan, Cork

and Edinburgh
Thomas M. Wotherspoon, Glasgow
Martin Cleary, Dublin
George Gillon Irving, Edinburgh

George Gillon Irving, Edinburgh William Hughes Jones, Edinburgh Thomas Bannerman, M.D., C.M., Montreal

G. H. Field, M.D., C.M., Toronto Maurice Hickey Enright, Liverpool, Dublin, and Edinburgh

Thomas Græme Dickson, Edinburgh Hugh Somerville Dobie, Manchester Ernest Brice, Birmingham Alexander M'Lellan Wilson, Glasgow Benjamin Hilton Leigh, Manchester William J. Nixon Davis, Edinburgh Charles Herbert Harris, Birmingham

#### APRIL 1896.

Fred. George Haywood, Birmingham Frederick Herbert Perry, Matthew Caldwell, Belfast John Bernard Voortman, Edinburgh and Glasgow Frederic Victor Elkington, London Heinrich Otto Kellner, Berlin James W. M'Brearty, New Zealand and Edinburgh William Chapman, Manchester John Stott, Aberdeen and Manchester Gustave Lewis, M.D., C.M., Montreal Hubert Hope Thomas, London George Broadbent, Leeds Edward Bernard Levy, Melbourne Corelli Collard Field, Canada Krishnaji Annaji Dodihalkar, Bombay Herbert Maunsell Hewlett, Melbourne and Edinburgh (with honours)

Frank Wiseman Doak, Sydney and Edinburgh Alfred Whitehead, Manchester Geo. Patrick O'Connor, Edinburgh Allan Forde, Cork Cecil R. Batchellor, Birmingham John S. C. Elkington, Melbourne Reginald Bryson, Bombay Edward Robertson, Melbourne

James Jeffares, Edinburgh

Samuel Nicolson, Glasgow Ardashir Sorabsha Paymaster, Bombay William Henry Drury, Leeds
Stanley Foster, London
James George Mackay, London
John James S. Healy, Melbourne
Robert Smyth, Edinburgh (with
honours)
Edward B. H. Hughes, Newcastle

Arthur Holmes Field, Edinburgh Thomas George S. Crouch, London William Gladstone-Cook, Newcastle-

on-Tyne and Durham
Kaval Vittal Rao,
C. E. Proctor, Liverpool and London
Edmund Joseph Cummins, Cork
John N. Coul, Newcastle-on-Tyne
George P. Searle, Edinburgh
George Grant Stewart, Kingston,

Canada
George Henderson,
Ernest Edward Crowther, Leeds
David Smith Henderson, Glasgow
James Morrison, Belfast
Patrick James Calnan, Edinburgh
Mark O'Brien, Cork
William H. Richardson, Manchester
Annie Christina Sutherland, London
Charles Ayton Marett, London
Daniel Viliesid, Belfast
Daniel Morrissy, Cork
Arthur John Pollard, Leeds
Alfred Hamman, Manitoba University

#### JULY 1896.

Harry Bennet Palmer, Edinburgh Henry David Lauchlan, London John D. M. Newlands, Liverpool Hamilton G. F. Stallard, London Leopold E. Braganza, Bombay Fraser Dosabhoi Shapoorji, Bombay Wm. Gordon M. Byers, Montreal Patrick Heanen, Dublin and Belfast Edw. J. Howley, London and Dublin Joseph Thorp Waite, Edinburgh Robert Stothart Wells, Edinburgh Chas. Edward Page, Edinburgh Abraham Goltman, M.D., Montreal Mars M'Clelland, M.D., Toronto Walter H. G. Broyer, Melbourne Annie Louise Brennan, Bombay Robert Weir Neill, Montreal Selik Wigoder, M.D., University of

Henry J. M. Wyllys, Edinburgh Isabella Aitken, Edinburgh Josiah Stephen Nedd, Toronto Sydney Octavius Hall, Bombay and Edinburgh

Maurice Hogan, Cork

William Daly, Cork Maneck Dadabhai Naoroji, Bombay Archibald Greer, Belfast Andries Lourens de Jager, Edinburgh Chas. N. Fraser Poole, London Manak Turkhud, Bombay Albert R. Wilkinson, Edinburgh Alex. Joseph O'Driscoll, Cork Morris F. H. Gamble, Melbourne Thos. Wm. Pattinson, Edinburgh John James Edgar, Edinburgh Sydney S. Broadbent, Sheffield Wallace Eales, Manchester Percy Brooke Unwin, Edinburgh and Glasgow John Titus Newton, Birmingham James Battersby, Glasgow William Griffith Pritchard, Glasgow Hugh M'Kay, Glasgow Robert Anderson Cameron, Glasgow William Haslam Brooks, Glasgow

Robert Philip Graham, Glasgow

Arthur George Johnson, Glasgow Kurunthotical Thos. Matthew, Madras Joshua Hodgkinson Hall, Manchester John English Harburn, Glasgow and Manchester

James Herbert Powell, Belfast
Maurice M'Sherry, Belfast
George Millar Speers, Belfast
John Robertson, Glasgow
Christopher Wm. Davidson, London
John Campbell Mackenzie, Melbourne
Charles Adolphe Knowles Renshaw,
Manchester

James Lilwall Cormack, Madras and Edinburgh

Mary Stuart Sinclair Coghill, London and Dublin

Cyrus Retallack, Melbourne and Edinburgh

Algernon Smith Marr, Glasgow John Harper Wigham, London Nicholas Charles Boyle, London

# SPECIMENS OF EXAMINATION QUESTIONS.

# Triple Qualification.

# FIRST EXAMINATION.

# Elementary Anatomy.

FOUR YEARS' COURSE.

All the Questions to be answered.

#### January 1894.

1. Give a description of the left nasal bone.

2. Describe briefly the ulnar artery, as regards its extent, course, relations, and distribution.

3. Describe the internal popliteal nerve, and name its branches.

4. Enumerate the ligamentous structure by which two lumbar vertebræ are held together.

#### April 1894.

1. Enumerate the bones which enter into the formation of the orbit, mentioning the position of each.

2. Describe radial nerve, as regards origin, course, relations, and

distribution.

3. Give a short account of the peroneal artery. If in the dissection of the calf the gastrocnemius muscle be already reflected, what further steps would be necessary in order to expose the vessel in its entire course?

4. Describe briefly the 10th rib, and state the points by which you

would distinguish it from the 11th rib.

1. Describe shortly the costo-coracoid membrane, and name the structures by which it is pierced.

2. Give a short account of the plantar arch as regards its mode of formation, relations, and branches.

3. Describe briefly the manubrium sterni.

4. Give a list of the foramina which are found in the anterior cerebral fossa.

#### July 1894.

1. Give a short account of the coccyx.

2. Having in the dissection of the front of the thigh fully exposed the

fascia lata, what further steps would be necessary to expose Hunter's canal? Describe briefly the canal, and enumerate its contents.

3. Give a short description of the bony palate.

4. Name the muscles which are inserted into the radius.

1. Describe the posterior cord of the brachial plexus, enumerate its branches, and give a short account of the circumflex nerve.

2. Describe briefly the anterior crural nerve, as regards origin, course,

relations, and distribution.

3. Describe the malar bone.

4. Give a description of the superior and inferior radio-ulnar joints.

#### October 1894.

1. Mention the localities, in the bones of the adult cranium and face, in which are found (1) air sinuses, and (2) cancellous tissue; and give the form and dimensions of the air sinuses.

2. Give the position and form of each of the articular surfaces of the radius and ulna, and explain the movements that take place at each.

3. Give the attachments and actions of the following muscles—(1) teres major; (2) flexor carpi radialis; (3) rectus femoris.

4. Give an account of the arteries and nerves seen in the dissection of the gluteus region.

#### January 1895.

1. Enumerate the bones articulating with the temporal bone.

2. Give the origins, insertions, and nerve supply of the pronators and supinators of the forearm.

3. Describe the ligaments of the ankle joint.

4. State the relative positions of the structures exposed on reflecting the gluteus maximus muscle.

#### April 1895.

1. Describe sternum, and mention the muscles that are attached to that bone.

2. Give the origins, insertions, actions, and nerve supply of the muscles forming Scarpa's triangle,

3. What muscles are supplied by the musculo-spiral nerve?

4. Describe the arteries of the foot.

1. State the origin, relations, and branches of the brachial artery.

2. Describe the ligaments connecting the radius with the ulna.

3. Describe the trapezius muscle, giving its function and nerve supply.

4. Mention the muscles that rotate the thigh at the hip joint.

1. Name the bones entering into the formation of the nasal septum, and describe their relations.

2. Name (1) the muscles which supinate the forearm, (2) their origin and insertion, and (3) their nerve supply.

3. Describe the ligaments of the hip joint, stating the function of each.

4. Describe the arterial anastomoses round the elbow joint.

#### July 1895.

1. Describe the anterior fossa at the base of the skull.

2. Describe the attachments, nerve supply, and actions of the interessei muscles of the hand.

3. Describe the movements at the elbow joint. Name and give the insertions of the muscles which produce them.

- 4. Describe the course and distribution of the obturator nerve in the thigh.
  - 1. Describe a typical cervical, dorsal, and lumbar vertebra.
- 2. Name the structures entering into the formation of the great sacrosciatic foramen. Enumerate the vessels and nerves passing through that opening.

3. Describe the radial artery from its origin to its ultimate distribution.

4. Enumerate and describe the muscles that extend the knee joint.

#### October 1895.

1. Describe the malar bone and its articular connections.

2. Describe the movements of inversion and eversion of the foot. At what joints do these movements take place? Name and give the attachments of the muscles which produce them.

3. Describe the relations of the synovial membrane and the extent of

the synovial cavity of the knee joint.

4. Name and give the distribution of the circumflex and musculospiral nerves.

January 1896.

1. Describe the naked-eye appearances seen on longitudinal and transverse section of the following bones: (1) femur, (2) a lumbar vertebra, (3) the frontal bone.

2. Compare the hip and shoulder joints, and state in what respect they differ in regard to articular surfaces, ligaments, and movements.

- 3. Give the attachments, arrangement of the fibres, and nerve-supply of the following muscles: (1) pectoralis minor, (2) gluteus medius, (3) tibialis anticus.
- 4. Give an account of the arrangement of the nerves in the palm of the hand and fingers.

April 1896.

1. Give an account of the articular processes of the vertebræ, from the atlas to the sacrum; including the direction of these processes in each group and in any particular vertebra.

2. Explain what is meant by a syn-arthrodial, an amphi-arthrodial,

and a di-arthrodial joint; and give two examples of each.

- 3. Give the attachments, arrangement of the fibres, and nerve-supply of the following muscles: (1) teres major, (2) adductor magnus, (3) soleus.
- 4. Describe the course and branches of the median and ulnar nerves, beginning at the elbow.

July 1896.

1. Describe the superior extremity of the ulna, and the ligament which connects the head of the radius with it.

2. State the insertions of the following tendons, viz:—(1) biceps flexor cubiti, (2) biceps femoris, (3) tibialis anticus, (4) tibialis posticus, (5) peroneus longus, and (6) peroneus brevis; and give the nerve-supply of each muscle.

3. Describe the palmar fascia.

- 4. Describe the anastomoses of arteries upon the scapula.
- Describe the development (1) of a dorsal vertebra, (2) of the tibia.
   Explain what is meant by the terms articular cartilage, inter-

articular fibro-cartilage, synovial-membrane, and ligament.

3. Give an account of the deep fascia and intermuscular septa of the thigh.

4. Describe the nerves seen in the dissection of the front of the thigh.

# Chemistry.

Four and Five Years' Courses.

Three Questions only to be answered.

January 1894.

- 1. How is sulphuretted hydrogen prepared? What are its properties? Represent by equations the action H<sub>2</sub>S upon acid solutions of the following—ferric chloride, copper sulphate, bismuth nitrate, corrosive sublimate.
- 2. Write the formulæ of the following—ethyl, aldehyde, acetic acid, common alcohol, ethane, common ether. State precisely the relationship which exists between these compounds.

Correct and complete the following equations—

 $Cl + H_2 S = Ba O_2 + H Cl = Na Cl + Mn O_2 + H_2 SO_4 = Pb Cl_2 + K_2 Cr O_4 =$ 

4. You are given an aqueous solution of mercuric chloride. Treating it as a solution of an unknown simple salt, state precisely how you would set about determining acid and base.

## April 1894.

State the laws of chemical combination.

2. What is galena? Describe briefly the manufacture of white lead. What is red lead? Give an account of the action of water upon lead.

3. What is the formula of potassium ferricyanide? Describe the Prussian blue test and the sulphocyanide test for prussic acid.

4. Describe the preparation and chemical properties of chloral.

1. Describe the preparation of mercurous and mercuric chlorides.

- 2. How is hydrogen peroxide prepared? What are its properties and chief tests? What is the action of hydrogen peroxide upon argentus oxide?
- 3. Give the formulæ of ammonium oxalate and calcium oxalate. How is oxalic acid prepared? How would you prepare carbon monoxide from oxalic acid?
- Define the following terms—oxidation, reduction, molecular weight, valency, compound radical, basicity.

#### July 1894.

1. Give an account of the preparation and properties of ammonia.

2. Given potassium carbonate, how would you prepare caustic potash?

3. Explain the process known as saponification.

4. Write down the formulæ of the following compounds—lunar caustic, calomel, corrosive sublimate, bismuth nitrate, chloroform, methyl alcohol, acetone, cream of tartar, urea, phenol.

1. Describe Reinsch's test and Marsh's test for arsenic.

2. How is carbolic acid prepared? How would you test for it?

3. Give the formulæ for benzene, aniline, benzoic acid, and benzoic

aldehyde.

4. An aqueous solution of barium nitrate is given as a solution of an unknown simple salt. State precisely how you would set about testing for acid and base.

#### October 1894.

How is phosphorus manufactured from bone ash? Give equations.
 Contrast the properties of its two important modifications.

2. Describe the preparations and chemical properties of nitrous oxide.

3. Give the properties and constitutional formula of urea.

4. Give the formulæ of the following compounds—acetic acid, amido-acetic acid, tartar emetic, potassium permanganate, calcium oxalate, iodoform, cane sugar, methane.

#### January 1895.

1. How is ammonia obtained from gas liquor? Describe the action of an aqueous solution of ammonia on an aqueous solution of—(1) mercuric chloride, (2) aluminic sulphate, (3) zinc sulphate, and (4) tartar emetic.

2. Describe the process by which lead and silver are obtained from

argentiferous galena.

3. Show what occurs when the following substances are placed in water, and give the equation in each case—(1) antimony trichloride, (2)

bismuthic nitrate, (3) baric sulphide.

4. What is chemical composition of gun-cotton? How is gun-cotton prepared? What are its properties? Give the formulæ of two analogous compounds.

April 1895.

1. Give (with equations) the steps in the separation of phosphorus from bone ash. State the physical and chemical differences between yellow and red phosphorus.

2. State the chemical nature and formula of—(1) cinnabar, (2) borax,

(3) sugar of lead, (4) rochelle salt, and (5) flake white.

3. What is meant when substances are stated to be (1) isomeric? (2)

isomorphic? (3) homologous? Illustrate by examples.

4. Name the two principal kinds of sugar, and give a method of differentiating them. State their chemical constitution and chief characteristics.

1. Describe how chlorine may be obtained from hydrochloric acid. What is the action of chlorine on (1) sulphur? (2) phosphorus? (3)

ammonia? (4) alcohol?

2. Show (by equations) the action of sulphuric acid on the following substances, stating in each case the conditions as to temperature and as to the concentration of the acid—(1) metallic copper, (2) cupric oxide, (3) metallic zinc, (4) binoxide of manganese, and (5) alcohol.

3. Explain steps of process in the formation of cast-iron from clay

ironstone.

4. What is the chemical constitution of a fat? How is glycerine obtained from fat? What is the difference betweed hard and soft soap?

#### July 1895.

1. Give a method of preparing hyposulphite of soda. What reaction takes place between an aqueous solution of this salt and (1) silver chloride? (2) hydrochloric acid?

2. Describe the action of nitric acid on the following substances, stating the conditions as to temperature and as to the strength of the acid—(1) charcoal, (2) metallic tin, (3) metallic copper, (4) metallic zinc, and (5) benzene.

3. Give the formula of copper pyrites, and shew how metallic copper is obtained from this ore. Name the more common alloys of copper, stating generally their composition.

4. Detail the steps in the oxidation of alcohol to oxalic acid.

#### October 1895.

1. Describe briefly the preparation of (a) Nitric acid, (b) Hydrochloric

acid. Explain the solvent action of aqua regia.

2. What is the effect of heating (a) Ammonium nitrate? (b) Ammonium nitrite? (c) Zinc sulphate? (d) Ferric sulphate? Give the equations in each case.

3. Define the term radical. Name a monad, a diad, and a triad radical from organic and inorganic chemistry. Write the rational formulae of

substances so as to illustrate each.

4. How can alcohol be formed synthetically from its inorganic materials?

### January 1896.

1. How is oil of vitriol prepared commercially? Name two substances by means of which you can prepare sulphur dioxide from sulphuric acid?

2. Give the details of Marsh's process for the detection of arsenic. What other poisonous substances may be indicated by this process?

- 3. How is chloral hydrate prepared? Give its symbol and properties, and shew by means of an equation the action of caustic alkalies on that substance.
- 4. Ten litres of hydrogen gas are to be prepared from zinc and sulphuric acid; what weights of these substances must be employed? Zn = 63.5. S = 32. H = 1. O = 16.

### April 1896.

1. Describe the process for the preparation of chlorine from common salt. Give the properties of chlorine, and explain the conditions under which it can bleach colours.

2. Give the sources from which white arsenic is obtained, describe the

process of manufacture, and give the properties of the substance.

3. Name the principal substances obtained when wood is destructively distilled, and state what they are employed for.

4. A solution has given you the following reactions. What is it?

HCl = no ppt.

 $HCl + H_2S = no ppt.$ 

 $NH_4Cl + NH_4HO + NH_4HS = white ppt.$ 

NaHO = white ppt. soluble in excess of NaHO, and re-ppt. by NH4Cl.

NH<sub>4</sub>HO = white ppt. insoluble in excess. Ba2NO<sub>5</sub> = white ppt. insoluble in acids.

1. How is red phosphorus prepared from bone ash? How does red phosphorus differ from the yellow variety?

2. Describe the preparation of white lead and of sugar of lead. How

can you distinguish these substances from one another?

3. Describe the principal methods by which chloroform is prepared.

4. Give the tests for acetate of copper in solution.

July 1896.

1. How can nitrous oxide be prepared? and how can this gas be distinguished from oxygen?

2. How is potash alum prepared? Describe the constitution of an

alum and give the symbol for any other alum known to you.

3. How is ethylic ether prepared? Give its properties, and name

three substances which are soluble in it.

4. How many litres of carbon dioxide can be prepared from sixty grammes weight of calcium carbonate? 0 = 16.Ca = 40.Ca = 12.

1. Name the principal constituents of the atmosphere, and give a process for their estimation.

2. How is tartar emetic prepared, and what are its chemical properties

and tests?

3. Give equations to shew the action of sulphuric acid on zinc; peroxide of manganese; alcohol; bichromate of potassium; and chloride of lead.

4. Give equations to shew the preparation of prussic acid from ferrocyanide of potassium.

# Physics.

#### FIVE YEARS' COURSE.

### All the Questions to be answered.

### January 1894.

1. What do you understand by the term energy? Distinguish poten-

tial from kinetic energy.

2. Distinguish between the terms mass, density, weight, and specific gravity. Describe one form of hydrometer. To what uses is the hydrometer put?

3. What are the characters of a musical note? How can the number

of vibrations per second of a sounding body be ascertained?

4. Describe the induction coil, pointing out the principles upon which it depends.

April 1894.

1. State Newton's law of gravitation, and mention any proofs that we have of its truth.

2. Describe the process of dialysis, and its uses in toxicology.

3. Define the terms latent heat, specific heat, and thermal capacity. Give reasons for regarding light and radiant heat as mere varieties of one phenomenon.

4. Describe the Leyden jar, and distinguish between its capacity for a

charge of electricity and that of an insulated spherical conductor.

1. A body falls freely from rest; find the velocity acquired and the distance fallen in fifteen seconds.

2. Explain the terms isochronism, critical temperature, centrifugal

force, work, momentum, elasticity, and inertia.

3. Describe the construction of the maximum and minimum thermometers. How can the ordinary mercurial thermometer be rendered more sensitive?

4. What do you understand by polarisation as applied to a galvanic

cell? How can it be lessened? What is the effect of temperature upon the electrical conductivity of a solid conductor and of an electrolyte?

#### July 1894.

1. What do you understand by the colour of a body? Why does a

black body appear to be black, and a blue body to be blue?

 State Boyle's and Charles's laws. Find the volume occupied at 0°C. and 760 mm. pressure by 500 c. cm. of a gas measured at 10°C. and 750 mm.

3. Compare sound waves with light waves, with regard to (1) their velocity of propagation; (2) nature of the medium; (3) wave lengths; (4) direction of the vibration.

4. Describe the construction of the galvanometer, and explain the

principles upon which it depends.

1. What is the function of a machine? Distinguish between the three

kinds of levers, and give examples.

2. State Torricelli's law as regards the velocity of outflow of a liquid through an aperture in the side of a vessel. In the case of a stream of water flowing under a certain head along a rigid tube of varying sectional area, point out the relation between the pressure exerted by the water on the wall of the tube and the sectional area.

3. Explain the means whereby a pure spectrum may be formed on a screen. How may a spectrum be recombined? What do you under-

stand by reversal of the lines?

4. Enunciate Ohm's law and Joule's law, and point out how light may be obtained from an electrical current.

#### October 1894.

1. Enunciate Newton's laws of motion, and give examples. Explain what is meant by the resolution and composition of forces.

2. Describe fully one process for finding the relative humidity of the

air. What are the chief causes of fogs?

3. What do you understand by polarised light? Indicate briefly the

principles upon which the saccharimeter depends.

4. What are the fundamental facts of thermo-electricity and of electromagnetism? How can these facts be utilised for the measurement of differences of temperature?

#### January 1895.

1. Give a short account of the process called osmosis.

2. If the acceleration due to gravity be 32 feet per second, how far does a stone fall in 3½ seconds?

3. Describe the process called convection of heat, and give some ex-

amples of it.

4. State how you would magnetise temporarily a rod of iron such as a poker, first without, and secondly with, the use of a voltaic current.

#### April 1895.

1. A lever of the first kind is 14 feet long, and the fulcrum is 2 feet from the weight, what power will lift 1 ton?

2. Describe the simple barometer, and find the atmospheric pressure in lbs. weight per square foot when the mercury column is 30 inches high.

3. Given a closed and an open organ pipe of the same length, which gives the higher note? If the frequency of the higher note be 256, what is that of the other?

- 4. State the principle of the induction coil, and point out why the spark from the secondary coil is so much longer than that got by breaking the primary circuit.
- 1. What is meant by the momentum of a body? What force will give a ball whose mass is 20 lbs. a speed of 20 feet per second by acting on it for \(\frac{1}{2}\) second?

2. Distinguish clearly between the processes called conduction of heat

and radiation of heat.

3. What is meant by the principal focus of a lens? What is it on the

same, and when on the opposite, side of the lens from the light?

4. When a strong current of electricity is sent through a length of fine platinum wire heat is produced. How does the quantity of heat produced depend upon the length and thickness of the wire?

### July 1895.

1. Define the term density. Find the density of a body of which a cubical block whose side is three feet contains 540 lbs.

2. Distinguish between the terms potential energy and kinetic energy. What is the kinetic energy of a body whose mass is 1 ton, and which has a velocity of 10 feet per second?

3. State fully on what the intensity and pitch of a musical note respectively depend. If two watches are just heard at distances of 20 and 15

feet respectively, compare their intensities.

- 4. Describe a Leyden jar, and explain fully the process of charging it. If a small jar and a large one contain equal charges, what difference is there in the discharge spark?
- 1. A uniform beam, 20 feet long and weighing 10 lbs. per foot, is carried by two men, one being 4 feet from one end and the other 6 feet from the other end, how much of the weight does each bear?

2. What is meant by the absolute zero of temperature? In the case of a gas, give the relation between its pressure, its volume, and its absolute

temperature.

3. Explain shortly how sound is propagated through the air.

4. Describe any simple form of galvanometer, and show how it is used to measure a current of electricity.

#### October 1895.

- 1. Explain the term acceleration. Find the acceleration of a body whose speed changes from 20 feet per second to 1 mile per minute in half a minute.
- 2. Distinguish clearly between specific heat and latent heat. State the unit in terms of which a quantity of heat is ordinarily measured.

3. Give the law according to which light is refracted when it passes

from one medium into another.

4. Describe any form of voltaic cell, and find the current from it if its E. M. F. is 2 volts, its internal resistance ½ ohm, and the external resistance 2 ohms.

#### January 1896.

1. What is the cause of the colours seen in the following instances:—
in grass, in the sky, in feathers, in a soap bubble, in a rainbow?

2. What is the law of gravity? How may the force of gravity be

calculated?

3. What is a musical note? What is the relation between any note

and its octave? What constitutes the difference in the quality of the same note in different musical instruments?

4. Give a full description of the thermo-electric pile and the method of using it.

April 1896.

1. With what initial velocity must a body weighing 1 lb. be propelled vertically upwards from the ground in order that 9 seconds may elapse before it returns to the ground? What will be the momentum with which it strikes the ground? How long will the same body take to reach the ground if shot out horizontally with a velocity of 1000 feet a second, from a height of 1000 feet above the ground?

2. Draw a diagram shewing roughly the course taken by rays passing in all directions from a luminous point 1 foot below a sheet of water the

surface of which is calm.

3. Describe the different ways of arranging the galvanic cells of a

battery and the particular advantage of each arrangement.

4. What temperature is indicated by the same numbers and signs on the Fahrenheit and Centigrade scales? Shew how you found the result.

1. Define (1) momentum, (2) acceleration, (3) centre of inertia, (4) specific heat, (5) latent heat, (6) elasticity.

2. What is the physical cause of sound? In what way is the rate at

which sound travels affected by the medium?

3. What is meant by the absolute zero of temperature? What is it on the Fahrenheit scale? What are the relative volumes of the same gas under the same pressure at  $-20^{\circ}$  C. and  $+20^{\circ}$  C.?

4. Give a description of a Leyden jar and the method of charging it.

## July 1896.

1. What is meant by specific gravity? How is the specific gravity of (1) solids, (2) liquids, measured?

2. Give three different methods of measuring temperature, and the

conditions for which each is most suitable.

3. Describe Coulomb's balance. State Coulomb's law of the mutual attraction and repulsion of electrified bodies.

4. Draw a diagram shewing the refraction of rays of sunlight through

a prism.

1. Draw diagrams shewing the relative positions of the weight, the power, and the fulcrum when use is made of (1) a pair of scissors, (2) a crowbar, (3) a treadle of a sewing-machine, (4) a wheelbarrow. Draw two cases of levers for which there is no mechanical advantage.

2. At what temperatures, as measured by the Reaumur, Fahrenheit, and Centigrade scales, does water boil and freeze? What conditions

cause these temperatures to vary?

3. What is meant by the "coefficient of friction"? What are the conditions that a cylinder of uniform density shall topple over when placed on an inclined plane instead of gliding down the plane?

4. Give the laws of reflection and refraction of light, illustrating them

by diagrams.

# Elementary Biology.

FIVE YEARS' COURSE.

All the Questions to be answered.

### January 1894.

- 1. Enumerate the most important distinctions between living and dead matter.
  - 2. Give a brief account of the development of hydra.
  - 3. Explain the construction of the fore limb of the pigeon.
- 4. What is the prothallus of the fern? Describe a microscopic appearance of the ventral surface of the prothallus.

### April 1894.

- 1. Explain the chief physiological properties of amœba.
- 2. Why is the lobster called an arthropod? Explain the various functions of the appendages of the lobster.
- 3. Give a general account of central nervous system of any vertebrate
- 4. Describe the position and structure of the sexual organs of the fern.
- 1. What is meant, by spontaneous generation? Explain how this subject has been experimentally investigated.
- 2. State the most important distinctions between the frog and the lobster.
- 3. Describe and explain the respiratory mechanism of any vertebrate animal.
- 4. What are the most important differences between the nutrition of an amœba and of a green plant?

#### July 1894.

- 1. Describe as fully as you can the process of fermentation carried on by saccharomyces.
- 2. Describe and explain the respiratory mechanism of the lobster.
- 3. Enumerate the chief differences between vertebrate and invertebrate animals.
- 4. What is the function of the spore of a fern? Explain how the spores are formed in the sporangium.
- 1. Explain and exemplify the following terms—fermentation, putre-faction, parasitism.
  - 2. Explain the chief distinctions between hydra and amœba.
- 3. Describe and explain the circulatory mechanism of the lobster or crayfish.
  - 4. Describe pollination and fertilisation in angiosperms.

#### October 1894.

- 1. State the chemical and physical properties of protoplasm.
- 2. Describe the skeleton of the lobster, and contrast with that of a vertebrate.
  - 3. Name the parts of the heart of the lobster, and explain the action.
- 4. Describe the microscopic appearance of the transverse section of the vascular bundle of a fern.

### April 1895.

1. Describe the structure of a typical vegetable cell.

2. Describe the chief parts of the alimentary canal in the crayfish or lobster. Where are the excretory organs (green glands) situated?

3. What is "alternation of generations"? Explain your answer with reference to the life history of the fern.

4. Contrast the skeleton of a frog's hind leg with the leg of a pigeon.

1. Describe the respiratory system of the pigeon. How does a frog breathe in winter when hibernating?

2. How do the salts in the soil enter a plant? By what path do they reach the leaves? How is the path known?

3. In what respects does a frog resemble a rose-plant—(1) as to structure, (2) as to functions, and (3) as to development?

4. What organs are seen when you remove the dorsal part of the cephalothoracic shield of the crayfish or lobster?

### July 1895.

1. What are the chief functions of leaves?

2. Describe what can be seen with the naked eye in the egg of a pigeon before fertilisation and after fertilisation, and two or three days of incubation.

3. In what two ways does the yeast plant multiply? In what condi-

tions does the rarer mode of multiplication occur?

4. Contrast the heart of a frog with that of a crayfish or lobster—(1) as to position in the body, (2) as to number of chambers, and (3) as to the nature of the blood which the heart contains.

#### October 1895.

 Describe the life-history of paramœcium. How would you procure specimens?

2. How does the spore of a fern differ from the seed of a rose? Where

is the spore formed, and to what does it give rise?

3. What two distinct sets of blood-vessels enter (a) the liver of a pigeon, (b) the kidneys of a frog?

4. What is the use of chlorophyll to a plant? Where is it most abundant? What conditions are necessary for its formation?

# Four Questions only to be answered.

### January 1896.

 Give an account of the respiration of plants and describe an experiment demonstrating its occurrence.

2. Describe the appearance of a living hydra as seen by the naked eye. What further particulars concerning its structure and action can be obtained by the use of a microscope?

3. What is the structure of the root of a rose tree? How does the root differ from the stem? What goes on in the root when the plant is living and growing?

4. Describe the pelvic girdle and hind limb of a pigeon.

5. What is the typical form of crustacean appendage? What modifications does it undergo in the crayfish, and in what way are they related to the function of the different limbs?

### April 1896.

1. What structures are seen on making a transverse section through the rhizome of a fern? Indicate by means of a sketch their relative positions, and state their uses.

2. Describe the circulatory and respiratory organs of the lobster. By

what means is the respiratory stream of water kept up?

3. Describe the microscopical appearance of the yeast plant. What food materials are necessary for its life? Describe the chemical nature of the alcoholic fermentation produced by this organism.

4. Describe the alimentary canal of the pigeon and the structures in connection with it. What are the functions of the various parts of the

canal?

- 5. Describe the structure of paramocium and explain how the process of respiration is carried on in it. Compare paramocium with amocba.
- 1. Describe the excretory organs of the lobster, and explain how they act.

2. What are the chief differences between animals and plants?

- 3. What is meant by the circulation of the sap in plants? Of what use is it, and how is it maintained? What are the chief points in which it differs from blood circulation in animals?
- 4. Describe the structure of a leaf and state the uses of the different structures present. If, in early summer, you were to strip off all the leaves from a rose-bush what would happen, and why?

5. Compare the heart and arterial circulation of the frog and the

pigeon.

#### July 1896.

1. Describe the circulatory and respiratory organs of the lobster.

2. What is a stoma? On what parts of the plants are stomata developed, and what is their action and their use?

3. Describe the appearances presented by an amœba, and explain how it moves and how it eats. How does a hydra differ from an amœba?

4. What are the chief modifications of the leaf in a rose, and what

functions do they severally perform?

- 5. Describe carefully the structure of the stem of a rose plant, and state in what respects it differs from the stem of a fern. How is growth of the stem effected in each case?
- 1. Describe the structure and mode of development of penicillium. How would you proceed to obtain specimens of penicillium?
- 2. What do you understand by the words "cell" and "protoplasm"? Describe the principal kinds of cell met with in hydra, and state their uses.
- 3. From what sources and by what means do plants and animals respectively obtain the carbon, hydrogen, and nitrogen which they require?
- 4. Describe the appearance and properties of the blood of a pigeon, and compare it with the blood of the lobster. How is the blood circulated in these animals?
- 5. Contrast briefly the reproduction of a flowering plant, a fern, and a frog.

# SECOND EXAMINATION.

## Anatomy.

FOUR YEARS' COURSE.

All the Questions to be answered.

### January 1894.

1. Describe the dissection necessary to expose the right common carotid artery and give the relations of that vessel.

2. Describe the position and connections of the ovary.

3. Give the origin, course, and distribution of the third cranial nerve.

4. Describe the male urethra in its entire course.

#### April 1894.

1. Give the steps of the dissection necessary to display the lingual artery in its entire course.

2. Name all the nerves found in the orbit, and state the position of each.

3. Give the position, relations, and connections of the spleen.

- 4. Define the position of the heart and its valves in relation to the thoracic wall.
- 1. Describe the saphenous opening and crural canal; give the immediate relations of the latter.

2. Describe the course, relations, and branches of the internal carotid artery.

3. Describe the position, connections, and structure of the corpus

callosum.

4. Name the motor nerves of the following muscles—(1) sternomastoid, (2) teres minor, (3) extensor carpi radialis longior, (4) mylo-hyoid, (5) rectus femoris, (6) stylo-hyoid, (7) thyro-hyoid, (8) abductor hallucis, (9) deltoid, (10) crico-arytenoideus posticus.

#### July 1894.

1. Describe the internal iliac artery and name its branches.

2. Describe the dissection required to expose the inferior maxillary nerve. Name its branches.

3. Give a description of the diaphragm.

Describe the walls of the cavity of the tympanum.

1. Describe the meatusis of the nose, and name the air cavities in connection therewith.

2. Describe the pre-vertebral sympathetic chain of the thorax, and

trace the distribution of the nerves derived from it.

3. Give the dissection necessary to expose the subclavian artery in

the third part of its course.

4. State the connections and describe the structure of the cornea.

#### October 1894.

1. What number of vertebræ form the sacrum? Describe the markings on the surface of the bone which indicate its mode of formation.

Describe the course of the internal pudic artery. Name in order its branches, and give their distribution and anastomoses. 3. Describe (1) the shape, (2) the position, and (3) the relations of the spleen.

4. Write a systematic description of the whole length of the femoral artery, including its relations, but not its branches.

#### January 1895.

1. Mention in their order the various parts that are in contact with

the lower jaw-bone.

2. (1) Mention where valves are met with in the heart and in the blood-vessels of the thorax, and (2) describe the anatomy and adaptation of those found at the apertures of the left ventricle.

3. Describe the ischio-rectal fossa-its boundaries and contents, giving

the appearances presented by these parts in dissection.

4. (1) Mention the muscles by which each of the movements of the shoulder joint is effected; and (2) give the attachments of the muscles that lie in contact with the capsule of that joint.

#### April 1895.

1. Describe the apertures of the pharynx—their position, formation, form, and size.

2. Give the relative anatomy of the aorta, from its beginning to where

it passes through the diaphragm.

3. Give an account of the differences between a characteristic portion

of jejunum and a characteristic portion of ileum.

- 4. Mention, in their order, the parts that lie between the elbow joint and the skin, and give the appearances presented by each of these parts in dissection.
- 1. Mention, in their order, the parts that are in contact with the following muscles—(1) external pterygoid, (2) mylo-hyoid, (3) scalenus anticus.

2. Describe the appearances presented when the pericardium is freely opened in front, and specify the parts which are covered by the serous pericardium.

3. Describe the anatomy of the parts that lie between the cæcum and the skin of the anterior abdominal wall, giving appearance of the parts

as seen in dissection.

4. Trace the course of the arteries by which collateral circulation can be carried on when the femoral artery is obstructed at the apex of Scarpa's triangle.

#### July 1895.

1. Describe the right phrenic nerve from its origin to its final distribution, and state the differences upon the left side.

2. Describe the third part of the subclavian artery, and name the channels by which the collateral circulation may be maintained after ligature of that part of the vessel.

3. Describe the steps of the dissection required to expose the internal abdominal ring. Describe the ring, and the variety of hernia which may

occur through it.

4. Describe fully the prostate gland, and the part of the urethra which passes through it.

1. Enumerate the cavities or localities in which cerebro-spinal fluid is found, and describe the passages of communication between them.

2. Give the relative position, size, and appearances presented on

dissection of the various parts that lie in the space between the manubrium sterni and the three upper dorsal vertebræ.

3. Give the course and relations of (1) the bile-ducts from where they

leave the liver, and (2) the ureter in the male.

4. Enumerate, in their order, the parts divided in a transverse section through the middle of the forearm.

#### October 1895.

1. Give the relative anatomy of the trachea—(a) in the neck; (b) in the thorax.

Describe the course and distribution of the blood-vessels within the eyeball.

3. Define those parts of the urinary bladder of the male that are, and

those that are not, in contact with the peritoneum.

4. Describe the venous system of the inferior extremity, giving the position of the trunks in relation to arteries, and state where valves occur in the veins of the limb.

#### January 1896.

## Four questions only to be answered.

1. Describe the nasal fossae, and their necessary cavities in the recent condition.

2. Name the several parts of the male urethra, and describe fully the

part nearest to the bladder.

3. Describe the origin, course, and distribution of the musculo-spiral nerve.

4. Give the relations of the external iliac artery, and describe the relations and anastomoses of its branches.

5. Describe the anatomy of the middle ear, not including the ossicles.

## Three questions only to be answered.

# April 1896.

1. Give the size, weight, position, and relations of the left kidney.

2. Describe the ligaments of the ankle joint.

3. Describe and give the relations and branches of the left vagus in the thorax.

4. Describe the cartilages of the larynx.

1. Describe the several venous sinuses within the cranium.

Describe the attachments and actions of the diaphragm.
 Describe the external plantar artery, and give its relations and its branches.

4. Describe the male urethra.

## July 1896.

1. Describe the naked-eye characters of the thyroid gland. Give its relations, and state whence it receives its arterial supply, and where its veins terminate.

2. Describe the cartilages and ligaments seen on opening the knee

joint, and give the precise attachments and uses of each.

3. Describe the adult virgin uterus.

4. Describe and give the relations of the right pulmonary artery.

### FIVE YEARS' COURSE.

# Elementary Anatomy.

All the Questions to be answered.

## April 1894.

1. Describe the development of the femur and tibia; and state at what period of life union of the epiphyses to the shaft is completed.

2. Name the various structures that enter into the formation of a complete joint; and state the uses of each of these structures.

3. Give the attachments and actions of the following muscles-(1) adductor magnus; (2) peroneus longus; (3) supinator longus.

4. Trace the median nerve from the axilla to its distribution, and state which nerve in the foot corresponds to the median nerve in the

1. Name, in their order, the bones of the hand, and mention the bone in the foot that corresponds to each of the bones of the hand (the hand being prone).

2. Give a classification of the joints, with a definition of each class,

and give an example of each class.

 Give the attachments and actions of the following muscles—(1) biceps flexor cubiti; (2) biceps flexor cruris; (3) plantaris.

4. Give an account of the course and anastomoses of the arteries in the palm of the hand.

### July 1894.

1. State the relative arrangement of compact and cancellous tissues in bones of lower extremity, as is seen in the dried condition in longitudinal sections.

2. Give the position and form of the articular surfaces of the atlas and axis, and explain the respects in which they differ from the articular

surfaces of the other cervical vertebrae.

3. Give the attachments and actions of the following muscles—(1) pectoralis minor; (2) flexor sublimis digitorum; (3) flexor longus digitorum pedis.

4. Give an account of (1) brachial artery; (2) its branches and their

anastomoses.

1. State directions of borders and surfaces of the shafts of following bones-tibia, fibula, and metatarsals; radius, ulna, and metacarpals (the

hand supine).

2. Define what is meant by (1) interesseous cartilage or fibro-cartilage, and (2) interarticular cartilage or fibro-cartilage; and (3) enumerate the localities in which each of these kinds of cartilage or fibro-cartilage occur.

3. Give the attachments and actions of the following muscles—(1) triceps extensor cubiti; (2) flexor carpi ulnaris; (3) soleus.

4. Give an account (1) of trunks of femoral arteries, and (2) of their branches.

#### July 1895.

1. State the position of the cuboid, and describe its articulations with other bones.

- 2. Give the origins, insertions, and nerve supply of the muscles lying in actual contact with the capsule of the shoulder joint.
  - 3. Enumerate the bones entering into the formation of the orbit.

4. Describe the ligaments of the knee joint.

### January 1896.

1. Enumerate the bones of the upper and lower extremities in such order as to show which are the corresponding bones.

Give an account of the structures that unite two lumbar vertebræ.
 Give an account of the tendons that flex and extend the fingers, including their attachments and actions; beginning at where they reach

the carpus.

 Give an account of the deep femoral artery and the anastomoses of its branches.

#### April 1896.

1. Describe the inferior extremity of the humerus.

- 2. Describe the anterior annular ligament of the carpus, and name the structures which pass beneath it, indicating the arrangement of the tendons.
  - 3. Describe the obturator nerve after it leaves the pelvis.

4. Describe the posterior tibial artery, and name its branches.

# Anatomy-Elementary and Advanced.

Four Questions only to be answered.

1. Give the attachments, relations, nerve-supply, and actions of the orbital muscles.

2. Give the relations of the ulnar nerve in the upper arm and forearm, and state what muscles and what area of skin will be affected if it is cut across immediately above the elbow.

3. Describe the position, relations, and connections of the liver.

4. Describe the inferior vena cava and name all the tributaries it receives.

5. Describe the iris.

# Elementary Anatomy.

All the Questions to be answered.

#### July 1896.

1. Describe the inferior extremity of the radius, and the structures by which it is connected with the ulna at that point.

Describe the brachialis anticus muscle, and give its nerve-supply.

3. Describe the internal and external plantar nerves.

4. Describe the femoral artery in Scarpa's triangle, and name its branches in that space.

1. Describe the vertebral extremity of a typical rib, say the seventh, and the ligaments which connect it with the vertebral column.

2. Describe the serratus magnus muscle, and give its nerve-supply.

3. Describe the cutaneous nerves of the forearm.

4. Describe the anastomoses of arteries around the knee joint.

## Anatomy.

Four Questions only to be answered.

## April 1896.

1. Describe the superficial and deep palmar arches.

2. Give the origin, insertion, nerve-supply, and actions of the rectus abdominis muscle, and describe the formation of its sheath.

3. Define the position of the right kidney, and trace the course of its

duct.

4. Name the parts seen on a vertical antero-posterior section of the brain passing through the middle of the corpus callosum.

5. Describe the pericardium, and state how it is arranged in relation

to the vessels entering and leaving the heart.

# Anatomy-Elementary and Advanced.

Four Questions only to be answered.

July 1896.

1. Describe the axillary space, and give the relative position of the structures occupying it.

2. Describe the spinal cord, excluding its microscopic structure.

3. Describe the dissection necessary to display the lingual artery in its whole course. Name its branches.

4. Describe the attachments, relations, and actions of the psoas

magnus muscle.

- 5. Name the structures seen in the interior of the right auricle and ventricle of the heart, and state the purpose each subserves.
- 1. Give the relations of the first part of the right subclavian artery, and describe its branches.

2. Describe the temporo-maxillary articulation.

- 3. Describe the formation of the lumbar plexus, and trace the distribution of its largest branch.
- 4. Give the relations of the stomach to (1) the anterior abdominal wall, and (2) the other viscera. Describe its arterial supply.

5. Name the cartilages of the larynx, and describe the two largest.

#### FOUR AND FIVE YEARS' COURSES.

# Physiology.

All to be answered.

#### January 1894.

1. Describe the pulse wave as to (1) velocity, (2) length, (3) shape. Mention and explain two of the more important modifications which its shape undergoes.

2. What is blood plasma? What are its constituents? How is blood

serum related to it?

3. Describe carefully the sub-periosteal formation of bone.

4. What is the muscular sense? Explain how it assists in giving us information of the outer world.

### April 1894.

1. Describe the changes taking place in the stomach during five hours after a meal of beefsteak and potatoes.

2. Explain Mariotte's experiment for the demonstration of the blind

spot.

3. What is hæmoglobin? What is its function in the body? How does it perform its function? What is its ultimate fate?

4. How is the work done by a muscle measured? What is the influence of the load upon the work done?

1. In what part of the circulation is the blood stream slowest? Enumerate and explain the causes of this.

2. Give a general summary of the chemical changes in a muscle (1)

during rest, and (2) during contraction.

3. How does the power of localising the part of the skin touched vary

over the surface of the body? How may this be explained?

4. What do you understand by a ferment? How may ferments be classified? Give an example of each class, and discuss the mode of action.

### July 1894.

1. What is the cardiac impulse? How may it be investigated? Ex-

plain a typical cardiogram.

2. How are the functions of nerves investigated? What is meant by an efferent nerve? In what different ways may efferent nerves act? What is an excito-reflex nerve? Give examples.

3. What is the influence of the following factors upon extent, force, and duration of a muscular contraction—(1) strength of stimulus, (2) load, (3) temperature.

4. Describe the results of section of the left optic tract.

1. Describe the functions of the placenta.

2. Describe and explain the effects of section of the one-half of the spinal cord (hemisection) in the mid-dorsal region.

3. Describe the changes in the form of the chest during inspiration,

and explain the causes of these.

4. What is the result of removal of the thyroid gland (e.g., in monkeys)? What is the probable function of the gland? Give reasons for your answer.

#### October 1894.

 What is meant by blood pressure? In which vessels is the mean blood pressure highest, and in which lowest? Explain this distribution of pressure.

2. What is lymph? How is it formed? What are the variations in its characters during fasting and during digestion? What changes occur

in it after it has passed through lymphatic glands?

3. Describe the way in which rays of light from an object at about one hundred yards distant are brought to a focus upon the retina, and explain how the changes in the direction of the rays are brought about.

4. What is the rigor mortis? Describe the physical and chemical

changes in a muscle during its onset.

## January 1895.

1. Describe the minute structure of a tooth. State the nature, number, and usual date of appearance of the teeth of the first dentition.

2. Describe the variations of endings of sensory nerves, mentioning any situations in which the various endings are found.

3. State the nature of the exchanges between the blood in the pul-

monary capillaries and the air in the pulmonary alveoli.

4. What are the channels of absorption in the gastric mucous membrane, and the mucous membrane of the small intestine? What is the nature of the absorbed materials in each case, and what is their subsequent course?

(Under Five Years' Course.)

1. Contrast the excretion of lungs, kidneys, and skin as to (1) the chief waste products eliminated, and (2) the amount of each eliminated in twenty-four hours.

2. Give an account of the nervous regulation of the heart beat.

3. Give a description of the minute structure of a voluntary muscular fibre.

4. Illustrate what is meant by the "economy of a mixed diet."

## April 1895.

Describe the electromotive properties of muscle.

2. Describe the minute structure of a lymphatic gland. What changes

does it produce in lymph?

3. (1) Where is the vasometer centre situated? (2) What vasomotor changes would follow section of the spinal cord below the medulla? (3) The spinal cord remaining intact, what effect on the secretion of urine would be produced by section of the renal nerves, and why?

4. What are the functions of the bile?

### July 1895.

1. Describe the minute structure of a villus. State in detail its

functions, and the nature of the processes going on within it.

- 2. Describe the occurrences within the heart immediately preceding and following, and just at the moment of production of the cardiac first sound.
- 3. Describe the mechanism of ordinary inspiration, stating the chief muscles and nerves involved.
- 4. What is meant by spherical aberration, and what by chromatic aberration? What arrangements in the normal human eye tend to obviate these imperfections?
- 1. What is meant by the phrase "proximate principles of food"? Give a list of the proximate principles of food. Which of these principles would be found in a dish made of sago, water, and sugar?

2. Distinguish between "saponification" and "emulsifying." To what extent and by what means do these processes occur in the body?

3. Describe a Malpighian body of the kidney, and discuss in detail the

part it plays in the secretion of urine.

4. How is the normal temperature of the body maintained generally? How is that temperature maintained without external aids (1) in a hot dry atmosphere, (2) in a hot moist atmosphere, and (3) in a cold moist atmosphere?

#### October 1895.

1. State the composition of normal human urine. State the average quantities of the chief constituents excreted in twenty-four hours.

2. Describe the minute structure of an artery. Note the differences

between the structure of an artery of the largest size, and that of an arteriole, and show the relation between these differences and the part played by each in the circulation.

3. When a sapid substance is taken into the mouth, an increased flow of saliva usually occurs. Give a detailed description of the chain of events by which this effect is brought about.

4. Contrast the action of the gastric and pancreatic juices.

January 1896.

1. Give an account of the origin, structure, functions, and results of the disintegration of the red and white human blood-corpuscles respectively.

2. What differences of inspiratory movement are observed in (1) young children, (2) women, (3) men? Explain the mechanism by

which air enters the pulmonary alveoli.

3. Describe the difference in appearance between the cells of the acting and resting parotid gland. Into what classes may salivary glands be divided? Describe fully the action of saliva on starchy foods.

4. Mention the principal nitrogenous constituents of urine, the seat of their formation, and the effects of diet on the amount excreted daily.

#### April 1896.

1. What events correspond in point of time with the second cardiac sound and pause respectively? Describe and state the functions of the musculi papillares.

2. Where is the respiratory centre situated? How has this been ascertained experimentally? Mention some conditions by which its

activity may be affected.

3. Describe the changes produced on washed fibrin, in (1) a solution containing ·2 per cent HCl, at a temperature of 40° C., and (2) on adding afterwards a glycerin extract of gastric mucous membrane. Describe the chemical tests for the chief substances produced.

4. Describe the changes, - physical, chemical, and electrical, -which

a muscle undergoes when it contracts.

1. Describe the effects of division of the cervical sympathetic nerve in the neck. How is this result brought about? Give two examples of nerves, which, when stimulated, produce dilatation of blood vessels.

2. How is the human voice produced? Describe the position of the vocal cords—(1) in ordinary inspiration, (2) during the emission of high

notes in singing, (3) when inhaling a deep breath.

3. How is the secretion of pancreatic juice normally excited? Contrast the activity of the glycerin extract of fresh gland with that which has been kept for twenty-four hours. Mention the ferments in this secretion and their action on foods.

4. What is the chemical composition of urea? From what substances is it formed? State the seat of its formation, and how the daily amount

excreted may be estimated.

#### July 1896.

1. Name the chemical elements found in hæmoglobin. (a) What are the characters of its crystals? (b) the results of its exposure to oxygen, and carbon monoxide? (c) and state how its amount may be estimated in a given specimen of blood.

2. What is the average number of respirations per minute in a healthy adult? What relation do these bear to the cardiac pulsations? How is

the respiratory or vital capacity in a healthy adult ascertained, and what

is its amount?

3. Describe the act of deglutition from its commencement until food reaches the stomach. What sensory and motor nerves are concerned, and where is the centre situated by which the movements are harmonised?

4. Give an account of the minute structure of the thyroid gland.

What are its functions, and the effects of its removal?

1. What is lymph? How does that obtained from the thoracic duct of a fasting animal differ from that of one recently fed? What circumstances increase its flow?

2. Describe the structure of a Graafian follicle. How does it originate?

What is a corpus luteum?

3. What results to vision would follow division of (1) the right optic nerve? (2) the right optic tract? In what part of the retina is vision

most acute? How is this determined?

4. Describe the minute structure of a lobule of the liver with reference to the arrangement of (a) its cells, (b) its blood vessels, (c) the bile capillaries. What are the physical characters of bile as obtained from the human gall bladder? State briefly its effects on the chyme.

### Materia Medica.

Four Years' Course.

(All to be answered.)

January 1894.

1. What are confectiones? Name those which are official. Give dose of each.

2. Give the physical characters of benzoinum, acidum benzoicum, potassii acetas, and copaiba. Give the doses of those which are used internally, and the methods of administering them.

3. Name official soaps, and their ingredients. Give their physical

characters.

#### April 1894.

1. How are suppositories administered? Name those which are official. State the composition of those which contain morphia or opium.

2. Give the physical characters of acidum gallicum, beberine sulphas,

and camphora. Give the dose of each.

- 3. How and from what plant is kino obtained? Give the characters of kino. Name the official preparations which contain it, and their doses.
- 1. What are resins? Name those which are official. Give the doses of those which are used internally.

2. Give the physical characters of adeps lanæ hydrosus, spiritus rectificatus, and spiritus tenuior. How much water does each contain?

3. Name the plant which yields valerianæ rhizoma. Give the names of its preparations, and their physical characters and doses.

### July 1894.

1. Write in Latin, without contractions of any kind either in names or quantities, a prescription containing iodide of potassium and colchicum. The signatura to be in English.

2. Give the physical characters of antimonium tartaratum, cambogia, cinchonidinæ sulphas, and ferri phosphas. Give the doses of each.

3. Give the physical characters of hydrargyri subchloridum, its dose, the mode of administering it, and the official preparations in which it is used.

1. Name the official enemata. State the quantity to be used, and the amount of the the active ingredient in each.

2. Give the physical characters of aloin, pulvis glycyrrhizæ compositus,

potassii iodidum, and alumen. Give the dose of each.

3. Name the preparations of iron which exist as scales. Give their physical characters, doses, and method of prescribing them.

#### October 1894.

1. Write in Latin, without contractions of any kind either in names or quantities, a prescription containing digitalis, nux vomica, and carbonate of ammonia.

2. Give the physical characters to sight, touch, taste, and solubility of bismuthi carbonas, sodii bromidum, pulvis ipecacuanhæ, and salicinum,

and give the dose.

3. Give the characters to sight and touch of sulphur præcipitatum and sulphur sublimatum. Name the preparations which contain the latter, and give the doses of those used internally.

### January 1895.

1. What is the composition and what the dose of acidum sulphuricum aromaticum, decoctum aloes compositum, pilula hydrargyri subchloridi composita, and pulvis glycyrrhizæ compositus?

2. Give a short account of the compounding of pills, referring to the special character of the excipient as required by the particular drug.

3. Describe three of the tap-shaped roots of the Pharmacopæia.

Name the preparations of each root and their doses.

4. Name the preparations of conii folia, and state mode of preparing extract.

#### April 1895.

1. Name the principal ingredients in tinctura camphoræ composita, pulvis scammonii compositus, pilula scillæ composita, and linimintum terebinthinæ aceticum.

2. What are the preparations of colchicum autumnale, and from what

part of the plant is each obtained? Give their doses.

3. Give the physical and chemical characters of arsenious acid, and its official preparations, referring also to some distinctive character of each, with the dose.

4. What are the "injections" and "discs" of the Pharmacopæia?

Give the composition and strength of each preparation.

1. Give the composition and strength of the lotions in the Pharma-copæia.

2. What preparations of conium are official, and in what doses are they employed?

Mention the characters and doses of sulphur precipitatum, plumbi acetas, galbanum, and creasotum.

4. Describe the composition of the three tinctures of opium, with dose.

### July 1895.

1. What are the physical characters of camphora, cajuputi oleum,

pareiræ radix, and santoninum?

2. Define, and describe the preparation of (1) infusions, and (2) decoctions, referring to the exceptions to the usual procedure under each class and the reasons for these exceptions.

3. What are the chemical and physical characters and the dose of strychnine? How is it prepared, and what is the alkaloid naturally

found with it?

- 4. Give an account of the different sennas, and name their preparations and the dose of each. What are the other small leaves of the Pharmacopæia (i.e. smaller than senna), and what are their preparations?
- 1. Enumerate the confections of the Pharmacopæia, and mention the ingredients and mode of preparation of any three.

2. Describe the physical characters of scammony, scammony root, and

scammony resin; and state how each is obtained.

3. What are the physical characters of bromine and iodine respectively? Of the former, what are the official preparations? State how any two of

its salts are prepared.

4. What is a tincture, and what determines the strength of the usual solvent? Name some tinctures in illustration of differences in strength, and name also the exceptional solvents, and for what tinctures they are employed.

#### October 1895.

1. Describe the physical characters of,—Menthol, galla, bellæ fructus, iodum, cambogia.

2. Name the official salts of zinc. How is the chloride prepared?

3. Name the official compound tinctures. What are the principal

ingredients and the dose of each tincture?

4. Give an account of (a) Calabar bean, and (b) belladonna leaves, and state how the alkaloid of each is obtained.

#### January 1896.

1. What is an extract? Give one example of each of the different forms of extract, with its dose.

2. Give the botanical source, characters, and dose of digitalis folia.

Name the official preparations.

3. Give the full Latin name, the chief ingredient, and the dose (if any) of each of the following,—Donovan's solution, sal volatile, Dover's powder, black wash.

4. How is chloral hydrate obtained? Give the dose of it and also of

a preparation of it.

#### April 1896.

1. What is an alkaloid? Name the principal alkaloid obtained from belladonna, from nux vomica, and from jaborandi. State in what form you would prescribe each of the three and in what dose.

2. What is ergot? Name its official preparations and their doses.

- 3. Give the Latin name, the physical characters, and, if necessary, the dose of each of the following:—Calomel, silver nitrate, chromic acid, cloves.
- 4. Mention the liquid preparations of opium, state the amount of opium in each, and give the dose of each of these preparations.

## April 1896.

1. How and from what are croton oil, castor oil, cajuput oil, and codliver oil obtained? Mention the dose of each, and their preparations, if any.

2. Name the official preparations of colchicum. State the dose of each,

and the part of the plant from which it is prepared.

3. Give the physical characters of the following, and state what each is obtained from :—Acidum gallicum, pepsin, resina, gossypium, aloin.

4. What is the principal source of iodum? Give the official preparations of it, not including its salts, and the relative strength of each.

### July 1896.

1. Name four official tinctures. Give the principal ingredients and dose of each.

Describe the physical characters of,—Menthol, oleum theobromatis, iodoformum, colocynthidis pulpa.

3. Give the dose and physical characters of corrosive sublimate.

Name its official preparations.

4. How and from what is oleum copaibae obtained? Give the dose, and state how you would prescribe it.

1. Give the official preparations of aconite and the dose of those used internally. What is the name of the plant, and what parts of the plant are used to make these preparations?

2. Describe the appearances, and give, where necessary, the dose of the following:—Antimonium tartaratum, filix mas, plumbi oxidum, ergota.

3. Name four of the more important preparations of iron, and state the

appearance and dose of each.

4. State the amount of the important ingredients contained in:— Lamellae atropinae, pilula saponis composita, tinctura camphorae composita, suppositoria plumbi composita. State how the first and last are intended to be used.

#### FIVE YEARS' COURSE.

#### All the Questions to be answered.

#### October 1895.

1. Give the characters and dose of sulphurous acid. Describe its pharmacological actions (a) when given internally, (b) when applied externally.

2. Mention the officinal preparations obtained from aconite root and give the dose of the one used internally. Describe its pharmacological

actions (a) when given internally, (b) when applied externally.

3. Give the composition and dose of each of the officinal hypodermic injections.

#### January 1896.

1. Define the terms lamella, extractum liquidum, confectio.

2. What part of the digitalis purpurea is official? Mention its preparations and their doses, and give a short account of its action on the circulation.

3. Describe plumbi acetas. Mention its dose and name its official pre-

parations.

4. What substances are used as bases for ointments?

### April 1896.

1. What is acidum sulphurosum? Describe its appearance and physical properties, and state what its chief actions are.

2. What is meant by the terms confectio, suppositorium, tabella, ex-

tractum?

3. What is jalap? Name its preparations and their doses. What is its action?

4. What salts of quinine are official? Describe them and state their doses.

#### July 1896.

1. What is creasote? Describe its appearance and properties, and state its dose and official preparations.

2. What is the strength of acidum hydrocyanicum dilutum? State its

dose and give an account of its physiological action.

3. Name a number of substances which are commonly used as excipi-

ents for pills.

- Mention three official preparations of magnesium. Give their doses and physiological actions.
- 1. Describe phenacetin. State its dose and describe its physiological action.
- 2. What is copaiba? What is its chemical composition and its dose, and how would you prescribe it?

3. From what is tannic acid obtained? Name its official preparations,

and indicate its physiological action.

4. Give a short account of the physical and chemical properties of alkaloids.

# THIRD EXAMINATION.

# Anatomy.

FIVE YEARS' COURSE.

All the Questions to be answered.

#### October 1895.

1. Name and give the position of the branches of the fifth cranial nerve which appear upon the face.

2. Give the insertions, actions, and nervous supply of the following muscles—tibialis anticus, tibialis posticus, and extensor longus digitorum.

3. Describe the dissection necessary to expose the gluteal artery, and

give its relations and distribution.

4. Describe the relations of the peritoneum to (1) the stomach, (2) the spleen, (3) the rectum, and (4) the uterus.

## Three Questions only are to be answered.

### January 1896.

1. Name and indicate the position of the structures in contact with the posterior surface of the pancreas.

2. Name in order the several constituents of the scalp as they would be met with in dissecting the occipital region of the skull.

3. Name and give the insertion and action of the muscles in contact

with the capsule of the hip joint.

4. Describe the pericardium and give its relations.

## April 1896.

1. Describe the left auricle of the heart; and state the relative positions to each other and to the chest wall of the mitral, tricuspid, aortic, and pulmonary valves.

2. Give the origin, insertion, and actions of the external pterygoid muscle, and name the structures in contact (1) with its superficial, and

(2) with its deep aspect.

3. Give the relations of the median and ulnar nerves to each of the following arteries: axillary, brachial, ulnar.

4. Describe the right internal iliac artery and name its branches.

## Four Questions only to be answered.

### July 1896.

1. Describe the external and internal pterygoid muscles. Name their nerve-supply, and describe their actions.

2. Describe the position, relations, and connections of the uterus.

3. Describe the venous channels situated on the inner surface of the base of the skull.

4. Trace the extracranial course of the motor and sensory nerves of the tongue.

5. Give the relations and branches of the profunda femoris artery.

### All the Questions to be answered.

## July 1896.

1. Describe the dissection to expose the vertebral artery in the suboccipital region.

Describe the duodenum, and give the relations of each part.
 Describe the broad ligaments of the uterus and the ovary.

4. What enlargements are found upon the spinal cord? Describe the appearance to the naked eye of a transverse section of the cord and its membranes in the mid-dorsal region.

# Pathology.

# April 1895.

1. Describe, step by step, the naked-eye and microscopic appearances seen during the healing of an open wound by granulation.

2. Mention the commonest sites of cerebral embolism. Describe its results in the brain, and state what secondary changes may follow.

3. Give an account of the morbid appearances in chronic interstitial nephritis.

4. Give an account of the life-history of the trichina spiralis. Describe fully its encysted stage.

1. Describe the ætiology, microscopic anatomy, and life-history of an

acute abscess. Name the micro-organisms which give rise to suppuration.

2. In what conditions is endarteritis obliterans met with? Describe the changes in the vessel wall. When the cerebral vessels are involved, what effects may follow in the brain?

3. Give an account of the pathology and results of intussusception.

Mention its common situations.

4. Give an account of the appearances seen in tuberculosis of the urinary tract, and state the usual modes of infection.

### July 1895.

1. What are the causes of waxy degeneration? What organs and tissues are specially affected by it, and what morbid appearances are produced?

2. Describe the changes found in the blood, and in the various organs

in leucocythæmia.

3. Describe the naked-eye and microscopic appearances seen in acute bronchitis affecting the medium-sized bronchi, and state how recovery takes place.

4. Give an account of the ætiology and pathology of pyæmia.

1. In what pathological conditions are calcareous salts deposited in the tissues? What structures are specially affected, and what effects are produced?

2. Give a short account of the bacillus of typhoid fever, and discuss

its relation to the disease.

- 3. Give the naked-eye and microscopic characters of chronic venous congestion (brown induration) of the lung. Describe the causation of the condition.
- 4. Describe the conditions which may be met with in the brain and its membranes as the result of tuberculosis.

## Three Questions only to be answered.

#### October 1895.

1. Give an account of the mode of formation of phthisical cavities

within the lung.

2. Give the causes of ulcerative endocarditis, and describe the changes produced by it in the valves of the heart. Mention some effects which may follow in other organs.

3. Name the varieties of cirrhosis of the liver. Describe the nakedeye and microscopic appearances of the most common alcoholic form, and

mention the secondary morbid conditions to which it gives rise.

4. Describe the naked-eye and microscopic appearances seen during the process of repair of a simple fracture through the shaft of a long bone.

#### January 1896.

1. Give an account of the morphology, life-history, and pathogenic action of the tetanus bacillus.

2. Define a sarcoma. Name the varieties of scarcomata. Give the naked-eye and microscopic characters of any one of them, stating also the situations in which it occurs.

3. Describe the naked-eye and microscopic appearances seen in the

various stages of acute croupous (lobar) pneumonia.

4. Enumerate the morbid conditions which may be met with in the brain and its membranes as the result of syphilis.

## All the Questions to be answered.

### April 1896.

1. What is colloid degeneration? Where may it occur?

2. Describe the naked-eye and microscopic appearances of an emphy-

sematous lung. How may such a condition be produced?

3. What are the most frequent sites of cerebral hæmorrhage? What local changes, and what secondary degenerations may follow from such a hæmorrhage?

Describe the life-history of the trichina spiralis.

1. What is waxy (amyloid) degeneration? What tissues and what organs are specially affected, and under what circumstances may this degeneration be produced?

2. Describe briefly the structure and contents of a hydatid cyst.

- 3. Describe the naked-eye and microscopic appearances of ordinary cirrhosis of the liver.
  - 4. What condition of the blood is usually found in pernicious anæmia?

### July 1896.

1. Describe the bacillus of tetanus. How does the bacillus produce the disease? In what situations is it found outside the body? How can a pure culture of it be obtained?

2. Describe the naked-eye and microscopic appearances of the heart in

fatty degeneration.

3. Mention the changes which syphilis may produce in arteries.

4. Describe the changes in the kidney in pyæmia.

1. What changes may syphilis produce in the liver?

Describe the mode of formation of a tubercular cavity in the lung.
 How is an acute abscess produced? Describe briefly its causes, and the changes in the tissues during its formation.

4. What are the most common primary and secondary sites of a

melanotic sarcoma?

# FINAL EXAMINATION.

## Medicine.

# January 1894.

1. Mention four diseases of which anæsthesia may be an important

symptom, and give the differential diagnosis in each case.

2. Enumerate the predisposing and exciting causes of bronchitis. State the signs and symptoms of capillary bronchitis in the first stage of the disease.

3. Give etiology, pathology, and complications of granular contracted

kidney.

4. State causes of abscess of liver, and give the morbid anatomy and diagnosis.

April 1894.

1. Give the diagnostic symptoms of hæmorrhage into the following parts of the nervous symptoms:—(1) The lower part of the fissure of Rolando. (2) The corpus striatum. (3) The lower third of the pons varolii. (4) One lateral half of the spinal cord in the dorsal region.

2. Give the causes, symptoms, and signs of pulmonary embolism.

3. Describe the most characteristic symptoms in an attack of epidemic influenza, and state the dangers to life in this disease.

4. Enumerate the various causes of pain in the region of the heart, and

give the diagnosis in each case.

1. Give the etiology, pathology, and differential diagnosis of hydatid disease of the liver.

2. Describe the motor disturbances in locomotor ataxia, paralysis

agitans, multiple cerebro-spinal sclerosis, chorea, and epilepsy.

3. State concisely the causes, signs, symptoms, and prognosis in a case

of aneurism of the posterior third of the arch of the aorta.

4. Mention the principal varieties of herpes, and describe particularly the etiology and pathology of herpes zoster.

### July 1894.

1. Describe shortly, explaining as far as possible, the eye symptoms met with in locomotor ataxia.

2. What is gout? Describe an acute attack. Enumerate the prin-

cipal effects of chronic gout on the internal organs.

3. Give the signs and symptoms of mitral stenosis. Mention the organs abnormally affected in a case in which cardiac compensation is fully established, and describe the conditions present in those organs.

4. State shortly the course and duration of pertussis, and enumerate

the complications which may occur in severe cases.

 Give the symptoms, signs, and diagnosis of diphtheria, and describe nervous affections which may accompany or follow this disease, including

their pathology.

2. Describe the course of the characteristic bowel affection in typhoid fever, indicating the relation of each stage to the period of the fever. Mention also the dangers to life which may arise in connection with this affection, and the earliest indications of each of them.

3. Give the etiology and pathology of angina pectoris, and the differ-

ential diagnosis between true and pseudo angina.

4. State concisely the points on which you should found a differential diagnosis in intestinal colic, renal colic, and hepatic colic.

#### October 1894.

1. Describe the characteristic peculiarities of the hæmorrhages in hæmophilia, purpura hæmorrhagica, and intermittent paroxysmal hæmatinuria.

2. Give pathology, symptoms, and course of a case of acute ascending

myelitis.

- 3. Enumerate the causes of hæmoptysis, stating shortly the peculiarities in the expectoration which are important in diagnosis in each instance.
- State the grounds on which you would found a diagnosis of catarrhal jaundice, and explain the causation of the jaundice.

#### January 1895.

1. What are the two varieties of angina pectoris? Mention the forms of heart disease in which it is most common, and give a full description of a paroxysm.

2. What are the causes, symptoms, physical signs, and consequences

of spasmodic asthma? Describe an attack.

3. Give the causes, symptoms, and course of pseudo-hypertrophic paralysis.

4. Give the causes, symptoms, and course of diphtheria. In what various ways may it prove fatal?

### April 1895.

- 1. What are the causes of chronic plumbism? Describe its symptoms and course.
  - 2. Give the causes, symptoms, and course of paralysis agitans.
- 3. Describe the symptoms, physical signs, and course of chronic bronchitis, and enumerate the secondary changes in the lungs that may be produced by it.
- 4. Describe the symptoms and course of chronic tuberculosis of the kidneys and genito-urinary tract.
- 1. Describe the symptoms, physical signs, dangers, and modes of death of fatty heart. What are the microscopic appearances of the muscular fibres of the heart in this disease?
- 2. What are the causes of stricture of the pylorus? Describe the symptoms and physical signs that result from such a stricture.
  - 3. What are the causes, symptoms, and course of acute myelitis?
- 4. Describe carefully (1) the rash of scarlatina, (2) the rash of small-pox, (3) the rash of typhoid fever, and (4) the rash of typhus fever.

### July 1895.

- 1. Describe the symptoms, course, and dangers of whooping-cough.
- 2. Give the causes, symptoms, and prognosis of Bell's paralysis.
- 3. What are the various causes of hæmaturia? Mention the symptoms, and the characters of the urine, which might help to shew whether the source of the blood is the kidneys, the ureter, or the bladder.
- 4. What is the usual cause of the ordinary form of cirrhosis of the liver? Describe the morbid anatomy of this disease, and give its symptoms and course.
- 1. Give the pathology, symptoms, dangers, and course of aortic regurgitation.
- 2. Mention the various causes of pneumo-thorax, and describe its symptoms and its physical signs.
- 3. Describe the morbid anatomy, symptoms, and course of multiple sclerosis.
- 4. Describe the symptoms and course of typhus fever. What are the chief indications of dauger in this fever, and in what various ways may it prove fatal?

#### October 1895.

#### Three Questions only to be answered.

- 1. Describe the symptoms and course of typhoid fever, and indicate the various ways in which this fever may prove fatal.
- 2. Describe, and contrast with each other, the eruptions of eczema, psoriasis, and herpes.
- 3. Give the causes and symptoms, and indicate the dangers of simple perforating ulcer of the stomach.
- 4. Describe the causes, symptoms, physical signs, course, and dangers of acute pericarditis.

### January 1896.

1. Give the mode of invasion, symptoms, and course of smallpox, and mention what complications may occur.

2. Describe the causes, symptoms, and varieties of anæmia.

3. State the symptoms, effects, and course of aneurism of the transverse portion of the arch of the aorta, and give the means of diagnosing it from other affections.

4. Describe the morbid anatomy and the clinical appearances of

empyæma.

April 1896.

1. Describe the appearances presented by hereditary syphilis in an infant, and indicate the symptoms to be expected in after life.

2. Give a short account of the symptoms, course, diagnosis, prognosis,

and lesions in leukæmia.

3. Describe the morbid anatomy, general symptoms, and physical signs in fibroid phthisis.

4. State how favus may be recognised, and describe its etiology.

1. Show how rickets is caused, and describe the morbid anatomy and symptoms of the disease.

2. Mention the forms of enlargement of the liver, and show how they

may be differentiated from one another.

3. Analyse the symptoms produced by renal calculus.

4. Describe the effects caused by total paralysis of the third cranial nerve.

#### July 1896.

1. Give a brief account of the clinical features of an attack of acute

gout, and explain its etiology and pathology.

2. Narrate the sequence of events in the development of mitral stenosis, and describe the physical signs and morbid effects which it produces.

3. Describe the symptoms, course, and merbid anatomy of acute

Bright's disease.

4. Describe psoriasis, and point out how it may be distinguished from other skin affections.

Analyse the symptoms and explain the etiology of scurvy.

2. Describe an attack of appendicitis, and give the means of diagnosing it from other affections.

3. Explain the origin of bronchiectasis, and give the symptoms, physical

signs, diagnosis, and prognosis of this affection.

4. Describe the lesions in spastic paralysis, and discuss the symptoms which it presents.

# Therapeutics.

Prescriptions to be written in unabbreviated Latin, the directions in English.

#### January 1894.

1. Mention the peculiarities in the actions of the following drugs which should be remembered when prescribing for sleeplessness—(1) opium; (2) sulphonal; (3) chloral; (4) bromide of potassium.

2. Give the treatment of a case of simple capillary bronchitis, and the modifications which would be necessary if you had as predisposing

causes of the bronchitis (1) mitral stenosis, (2) rheumatism, or (3) renal disease.

3. Describe and explain the treatment of a case of gastric ulcer.

Prescription—Prescribe a mixture containing antimony, ipecacuanha, squill, and acetate of ammonium, for acute bronchitis at an early stage in an adult.

#### April 1894.

1. Give and explain the treatment of cardiac dropsy, keeping in view

the various factors on which the dropsy may depend.

2. Enumerate the means at our disposal for diminishing or arresting hamorrhage from (1) lungs, (2) stomach, (3) bowels, and (4) kidneys, giving illustrative examples of conditions in which each might be suitably employed, and the mode of employment.

Discuss the important points in the treatment of bronchial asthma.
 Prescription—Prescribe an ointment for scabies containing sulphur, tar,

green soap, lard, and chalk.

1. Give treatment of chronic gout, with granular contracted kidney, and uræmia.

2. Mention the objects one should keep in view in treating a case of diphtheria. State precisely the measures you would employ to meet each of these indications.

3. Describe the management of a case of smallpox occurring unex-

pectedly in a family.

Prescription—Prescribe a pill containing valerianate of zinc, iron, and extract of gentian, for a case of chlorosis with hysteria.

### July 1894.

1. Illustrate by suitable examples the employment of the following means of reducing fever—(1) the cold bath, (2) aconite, (3) salicylate of soda, (4) quinine, (5) antipyrin. Give directions for use in each case.

2. Describe the treatment of facial neuralgia, according to the causes

that may have given rise to it.

3. Explain the treatment of aneurism of the thoracic aorta.

Prescription—Prescribe a mixture containing ergot, iodide of potassium, and hyoscyamus, for an adult.

 Describe the treatment of a case of scarlatinal nephritis, explaining how each of the dangers that may be anticipated is to be warded off.

2. Explain the beneficial action in cases of dropsy in each of the following remedies—(1) digitalis, (2) caffein, (3) acetate of potash, (4) peptonised foods.

3. Write out instructions for the guidance of a patient who has just

recovered from a first acute attack of gout.

Prescription—Prescribe a pill containing mercury, squill, and digitalis, in a case of cardiac dropsy.

#### October 1894.

1. Prescribe and explain fully the treatment in a case of angina

pectoris.

2. State and explain the circumstances in which each of the following emetics would be most suitable—(1) ipecacuanha, (2) sulphate of zinc, (3) apomorphine; (4) warm water.

3. Describe the treatment of neurasthenia.

Prescription—Prescribe a pill containing gelsemium and croton chloral for a case of obstinate neuralgia.

January 1895.

1. Describe how you would treat a patient threatened with cardiac asystole, as shewn by extreme cardiac dyspnœa, feeble and irregular

Give the appropriate treatment—(1) for the night sweats, (2) for

the diarrhoea of advanced phthisis.

3. How would you treat a case of acute catarrh of the stomach produced by alcoholism?

Prescription-Prescribe a mixture containing digitalis and squill for a case of mitral disease of the heart with bronchitis.

### April 1895.

1. Describe carefully, and with particular reference to the dieting, the whole management of an ordinary case of typhoid fever. State also how you would treat a case in which hæmorrhage occurred.

2. Give the appropriate treatment for angina pectoris—(1) during the

paroxysm, and (2) in the intervals between the paroxysms.

3. How would you treat a case of severe and obstinate vomiting produced by chronic alcoholism?

Prescription—Prescribe for a case of phthisis an antiseptic inhalation containing creasote and carbolic acid.

- 1. When digitalis is being given for the treatment of cardiac debility and dropsy, what are the points that should be inquired into from day to day, with the view of determining whether the drug is doing good or
- 2. Give the treatment of spasmodic asthma—(1) the treatment of an attack, and (2) the preventive treatment in the intervals between the
- 3. How should an ordinary case of Bell's paralysis produced by a chill be treated?

Prescription—Prescribe an opiate enema for diarrhœa.

## July 1895.

1. Give the dietetic and medicinal treatment appropriate for diabetes.

2. Describe the treatment and general management of a case of early

3. Give the treatment of plumbism, including that of drop-wrist. Prescription—Prescribe pills containing codeia for a case of diabetes.

Give the appropriate treatment for a case of acute quinsy.

2. Describe the treatment, and general management, of a case of chronic Bright's disease (contracted granular kidney).

3. Give the treatment appropriate for epilepsy—(1) in the intervals between the fits, (2) during a fit, (3) during the status epilepticus.

Prescription-Prescribe a mixture containing bismuth and soda for a case of irritable dyspepsia.

#### October 1895.

1. In a case of pleurisy with effusion, what symptoms would indicate the advisability of paracentesis thoracis? Describe the operation.

2. Give the treatment appropriate for acute nephritis.

3. Describe the treatment and general management of a case of acute capillary bronchitis.

Prescription-Prescribe for the hectic fever of phthisis, pills containing quinine, digitalis, and opium.

## January 1896.

1. Give the treatment of myxoedema.

2. Describe the general management and medicinal treatment of cardiac failure.

3. State how renal calculus may be treated, (1) during an attack, (2) to avert a recurrence.

Prescription—Prescribe for a case of acute sthenic bronchitis, a mixture containing antimony, ipecacuanha, and acetate of ammonium.

#### April 1896.

Describe the treatment appropriate for chlorosis.

2. Formulate the indications for treatment in acute pneumonia, and show how they are to be met.

3. Give the management of chorea in childhood.

Prescription—Prescribe a pill containing mercury, rhubarb, and colocynth for duodenal catarrh.

Give an account of the management of a case of measles.

2. Describe the various means of treating tubercular peritonitis.

3. State how you would treat delirium tremens.

Prescription—Prescribe a lotion containing carbolic acid, glycerine, and rose water for senile pruritus.

### July 1896.

1. Lay down rules for the management of rickets.

2. State how you would treat gastric ulcer.

3. Describe the method of treatment most likely to be of use in acute eczema.

Prescription—Prescribe a gargle containing chlorate of potassium and bicarbonate of sodium for acute tonsillitis.

1. Describe the various means of treatment applicable to a case of diphtheria.

2. Show how the symptoms may be met, and the dangers averted in acute Bright's disease.

3. Give the treatment of locomotor ataxia.

Prescription—Prescribe an ointment containing chrysophanic acid for psoriasis.

# Surgery.

#### January 1894.

1. Describe the usual displacements and the proper treatment of a fracture of both bones of the right leg, produced by a fall on the feet from a height.

2. Describe fully what precautions you consider necessary in the treatment of retention of urine from enlarged prostate in an old man. In what various ways may such a condition lead to a fatal issue?

3. Discuss the treatment by operation of tubercular disease of the

4. Describe the treatment for such surgical ailments as are prone to arise in the case of an elderly patient suffering from chronic diabetes.

#### April 1894.

1. Enumerate and shortly describe various conditions causing severe or persistent hæmorrhage per anum, and describe the surgical treatment of one of the conditions you mention.

2. Discuss the treatment of a psoas abscess connected with disease of the vertebral column.

3. Describe the clinical characters, diagnosis, and treatment of fatty

tumours.

- 4. A man of 50 has a small ulcer on one side of tongue. Discuss the probabilities of such a case, as regards pathology, future course, and suitable treatment.
- 1. What is meant by a "fistula in ano"? Describe its characters, chief causes, and treatment.

2. Describe fully a method of amputating in the middle of the thigh,

and give your reasons for preferring the method you describe.

- 3. State in detail how you may attach a weight, acting over a pulley, to the lower limb with the view of making extension. Enumerate various cases in which such an apparatus may be useful, giving the reason for its use in each case.
- 4. A sportsman has an eyeball struck by a pellet. Discuss the question of treatment, and give reasons for the treatment you may suggest in the various degrees of injury which such an accident may cause.

### July 1894.

1. Give symptoms, diagnosis, and treatment of malignant disease of esophagus.

2. Discuss the clinical characters and treatment of cancrum oris.

3. Write a full inventory of instruments, apparatus and dressings, to be taken with you to a house where you are about to perform an amputation of the thigh.

4. Give the symptoms, diagnosis, and treatment of gonorrheal

ophthalmia.

1. How would you treat a punctured wound (1) of the radial artery just above the wrist, and (2) of the deep palmar arch?

2. Describe the operation of circumcision. What evil effects are apt to follow from phimosis in the infant and in the adult respectively?

3. Describe fully the histological appearances characteristic of a fibrous

carcinoma (scirrhus) of the breast.

4. A man meets with fracture of the base of the skull, and a convergent strabismus of one eye is subsequently developed. How is it to be distinguished from the convergent strabismus which may develop in a healthy schoolboy? What is the pathology, mode of production, and suitable treatment in each case?

#### October 1894.

1. Suggest treatment for a subcutaneous nævus, which involves a portion of skin over it (1) in the lower eyelid, (2) on the cheek, and (3) on the buttock.

2. Describe the most common dislocation of the thumb at its metacarpophalangeal articulation. Describe its treatment. Is it ever difficult of

reduction? and if so, why?

3. Describe any satisfactory method of suturing (1) a small perforating wound of intestine, and (2) two pieces of intestine which have been cut entirely across by the removal of an intervening piece.

4. Describe fully a method of amputation at the ankle.

### January 1895.

1. Mention the varieties of tumour of the thyroid. Give the diagnosis and treatment of cystic goitre.

2. Describe the varieties of nævus, and give the treatment which you

consider to be most appropriate to each.

3. Name the various dislocations of the shoulder joint. Give the symptoms of the most common form, and describe the method you would employ for its reduction.

4. Give the varieties of whitlow, their pathology and treatment.

### April 1895.

1. Mention the various forms of ulcer of the tongue, and give the differential diagnosis of the syphilitic and epithelial forms.

2. Give the symptoms, diagnosis, and treatment of tubercular sacro-

iliac disease.

- 3. Mention the various forms of fracture of the patella, and describe a method of treatment by operation.
  - 4. What are internal piles? Give their symptoms and treatment.

1. Mention the tumours most commonly met with on the head, and give the diagnosis, pathology, and treatment of meningocele.

2. Give the symptoms and treatment of acute bursitis, and mention the

localities where it is most frequently met with.

3. What is appendicitis? What are its symptoms? Under what

circumstances is operation necessary?

4. What is hammer toe, and how should it be treated? What is hallux rigidus, and how should it be treated?

#### July 1895.

1. State the three most dangerous complications of septic middle ear disease. Describe the symptoms, and the treatment you would adopt for any one of these complications.

2. What is the mechanism of the most common form of fracture of the dorsal spine? Describe how you would treat such a case if there is

paraplegia present.

3. Mention all the parts concerned in maintaining the deformity in talipes varus. What would you advise in the case of a newly-born child with this deformity?

4. Mention the tumours which occur in connection with bone. Give

treatment of any one of these.

1. Mention the various pathological conditions that may give rise to enlargement of the glands of the neck, and give the symptoms and treatment of tubercular glands in that situation.

2. Give the cause, symptoms, and treatment of fracture of the

olecranon.

3. Give the symptoms of renal calculus, and describe an operation of nephrolithotomy.

4. Give the pathology and treatment of varicose veins of the leg.

#### October 1895.

1. Give the pathology, symptoms, and treatment of suppuration in the antrum of highmore.

2. Mention the fractures of the humerus that occur above the insertion of the deltoid, and give the symptoms and treatment of one of these.

3. Give the causes, symptoms, and treatment of rupture of the urethra anterior to the triangular ligament. How would you make a metal catheter aseptic?

4. What is acute osteomyelitis? Describe its symptoms and treat-

ment. State where it most frequently occurs.

### January 1896.

1. What are ganglia? Where are they most frequently found, and

how would you treat them?

2. In fracture of the base of the skull, state the usual line of fracture in the bone: the symptoms which may be present: your prognosis: and the treatment you would adopt.

3. Give the pathology, symptoms, and treatment of carcinoma of the

œsophagus.

4. A child has for some time suffered from a purulent discharge from the ear. It becomes restless, complains of headache, vomits, and gradually grows insensible. State what these conditions may indicate, and any other symptoms you would expect either present or in prospect conformable to the diagnosis you make. What treatment would you propose?

April 1896.

1. What are internal hæmorrhoids? How are they caused, and how would you treat them?

2. Describe the pathological sequelæ of tubercle in the testis, and state

what treatment you would adopt regarding the testicle.

3. Give the causes, symptoms, and treatment of purulent conjunctivitis.
4. Name the common dislocations of the shoulder joint in their order of frequency, and the method of reduction you would employ.

1. Give the pathology of chronic abscess. From what may it arise, and

how would you treat it?

2. What are some of the tumours of bone more commonly met with? State in what bone or bones they are most frequently found, and in what particular region of the same.

3. Give the pathology, symptoms, and treatment of nasal polypi.

4. A man aged sixty years complains of inability to retain his urine, which he states is constantly trickling away. What may such a condition indicate? How would you confirm your diagnosis and treat the case?

#### July 1896.

1. What symptoms may exist in connection with advanced tuberculosis of the spine in the mid-dorsal region? How do you explain them?

2. Give the causes of varicose veins, the conditions to which they give

rise, and their treatment.

3. How would you distinguish between an ovarian cystoma and a

uterine myoma both producing a visible abdominal swelling?

4. An adult male patient has suffered for some days from constant vomiting, neither faces nor flatus have passed per rectum, periodic attacks of colicky pains are complained of, and there is some abdominal distension, with visible peristalsis. There is a history of constipation for some months, with intercurrent attacks of diarrhoa. State what you consider to be the nature of the disease; any further facts which you would expect, to aid in your diagnosis; and the treatment you would adopt.

1. Give the causes, symptoms, and treatment of aneurism of the popliteal artery.

2. Enumerate the various causes which may produce the death of bone, and describe the process by which nature effects a separation of the dead fragment from the living.

3. Give, in their order of frequency, the various dislocations of the hip

joint; and state briefly the characteristic features of each.

4. The wheel of a cart passes across the abdomen of a man. State what lesions might be caused, the symptoms you would expect in any one of these injuries, and the treatment to be adopted.

## Surgical Anatomy.

Both Questions to be answered.

## January 1894.

1. Name in their order the structures exposed or divided during the

operation of lumbar nephrectomy.

2. Describe, with reference to the anatomy of the parts traversed, the course by which a psoas abscess reaches the thigh, when it originates in disease (1) of the dorsal spine, and (2) of the lumbar spine.

## April 1894.

1. Describe the anatomy of the sixth and portis dura of the seventh cranial nerves; and state how such knowledge enables the surgeon to recognise how they have been injured in a case of fracture of the base of the skull.

2. Enumerate any important structures which may be injured in opening a deep-seated abscess of the parotid, and describe fully the

situation and relations of such structures.

1. What structures constitute the hairy scalp? and why, on anatomical grounds, should a septic wound of the scalp be more dangerous than one of the general integument of the body?

2. Describe the structure involved in the operation of suprapubic

cystotomy.

#### July 1894.

1. After injection of a hydrocele of the tunica vaginalis with iodine, pain is often complained of in the thigh of the same side as well as in the back and testicle. Describe, in explanation of this fact, the anatomy of the nerve supply.

2. Enumerate the various synovial cavities of and around the knee joint, and discuss briefly the relations of each to matters of practical

Surgery.

1. A thecal abscess on palmer aspect of one finger leads to suppuration also in the palm and forearm, while in another finger nothing of the sort occurs. Explain the cause of the difference, and describe shortly the anatomical relations of the synovial sheaths to the flexor tendons in the five digits, the palm, and the forearm.

2. Describe the surgical anatomy of the third part of the subclavian

artery.

#### October 1894.

1. Enumerate the various epiphyses of the ends of the bones entering into the elbow-joint; and name those of them which are occasionally detached by violence during childhood.

2. Describe the course and anatomical relations of the dorsal artery of

the foot.

#### January 1895.

1. Name the bones of the tarsus in order. Mention all the structures cut through in an operation for the removal of the os calcis.

2. Give the course and relations of the external iliac artery,

## July 1895.

1. Give the relations of the peritoneum to the bladder, with special reference to the operation of suprapubic cystotomy.

2. Give the relations of the mastoid antrum. How would you deter-

mine its position with the view of opening into it?

1. Enumerate in order the structures that form the scalp, and mention the situations in the scalp in which suppuration may occur.

2. Describe Scarpa's triangle, with special reference to the operation

of ligature of the superficial femoral artery.

1. Mention the structures cut through in an amputation at the knee joint (disarticulation).

2. Describe the axillary space with its boundaries and its contents.

1. Give the course and relations of the great sciatic nerve, with special reference to the operation for stretching it.

2. Describe the sigmoid flexure, and mention the parts cut through in

the operation of iliac colotomy.

#### October 1895.

1. Describe the course of the external popliteal nerve. In what operations may it be injured?

2. Give the relations of the trachea, with special reference to tracheo-

tomy.

#### January 1896.

1. State, in their relative positions, the structures you would divide or separate in the operation of tracheotomy, and those which are liable to be injured if the operation is not properly performed.

2. In excision of the shoulder joint, what muscles have to be divided?

#### April 1896.

1. Explain, on purely anatomical grounds, the cause of pain at the knee joint in hip disease; of pain at the end of the penis in vesical calculus; of pain at the pit of the stomach in caries of the dorsal vertebræ; of pain at the side of the head in cancer of the tongue; and of pain between the shoulder blades in ulcer of the stomach.

2. Describe Scarpa's triangle.

1. Which lymphatic glands would you expect to be involved in carcinoma of the following regions:—Tongue, mamma, glans penis, esophagus, colon, rectum, and anus?

2. Give the course and relations of the third part of the subclavian

artery.

## July 1896.

1. Give the course and distribution of the musculo-spiral nerve.

2. By what venous channels is blood returned from the lower part of the rectum to the inferior vena cava?

1. Describe the course and give the relations of the rectum in the male and in the female.

2. Describe the course and give the relations of the external carotid artery, and the points of origin of its various branches.

## Midwifery and Gynæcology.

Three Questions to be answered, of which the last must be one.

## January 1894.

1. What signs and symptoms of pregnancy would you expect to find

in a multiparous woman at the beginning of the fifth month?

2. (1) Enumerate the most important maternal causes of abortion. (2) At which period of pregnancy is abortion most frequent, and why should it be so?

3. Describe the mechanism by which the head clears the brim of a

slightly flat pelvis.

4. Explain how you would distinguish between the following things felt on vaginal examination through the posterior fornix—(1) A fibroid tumour growing from the posterior uterine wall. (2) A prolapsed and enlarged ovary. (3) A scybalous mass in the rectum.

## April 1894.

1. (1) Explain how you would calculate the onset of labour from the period of menstruation. (2) What errors may arise, and what fallacies must be kept in view in making this calculation? (3) If menstrual data are absent, how would you determine the period of pregnancy?

Name the three most common causes of abnormal enlargement of the uterus during pregnancy, and explain how you would distinguish

between them.

3. Enumerate the conditions requiring the use of the forceps at the

brim. State the special dangers of the operation.

- 4. (1) Give an account of the signs, symptoms, and diagnosis of recent gonorrhea in the female. (2) What are the immediate and the remote dangers of this condition? (3) How would you treat such a case?
- 1. Describe the mechanism of a right occipito-posterior vertex case (1) when the occiput rotates forwards; and (2) when the occiput rotates backwards.

2. Give an account of the nature, signs, symptoms, diagnosis, and

management of a case of vesicular degeneration of the chorion.

3. You are called to a multipara who has been some hours in labour. The membranes have recently ruptured, but only a small quantity of the waters have drained away. On examination you find the os is fairly well dilated, the saggital suture lies in the transverse diameter at the brim, and the anterior fontanelle can be readily felt. With a little effort the head can be pushed away from the brim. The cavity is fairly roomy, and the sacral promontory can be reached without much diffi-

culty. (1) Explain the cause of delay. (2) What treatment would you adopt? Give reasons for your choice.

4. Give an account of the anatomical changes and of the signs, symptoms, and treatment of chronic endocervicitis in a nullipara.

## July 1894.

1. Give an account of the signs and symptoms of pregnancy you would

expect to find in a woman at the end of the fourth month.

2. (1) Explain how the condition known as retroversion of the gravid uterus may arise. (2) What are the possible terminations of a case if left to itself? (3) What symptoms would you expect to find in a case about the tenth or twelfth week?

- 3. (1) What do you understand by the term accidental hæmorrhage? (2) Describe the treatment you should adopt if called to see a case about the end of the ninth month in which the os was about the size of a florin and somewhat rigid, while the patient was losing a considerable quantity
- State how you would distinguish between the following conditions— (1) Pregnancy at the sixth month. (2) An ovarian cystoma reaching to the umbilicus. (3) A fibrocystic tumour reaching to the umbilicus.
- 1. (1) On what signs and symptoms would you base a diagnosis of tubal pregnancy previous to rupture? (2) When does rupture usually occur? (3) What results may follow upon rupture?

2. Describe (1) the diagnosis, and (2) the mechanism of delivery in a

right mento-posterior face case.

3. Give an account of the special features of the following varieties of deformed pelvis—(1) The Nægele pelvis (obliquely contracted). (2) The Spondylolisthetic pelvis. (3) The Kyphotic pelvis.

4. What are the causes, signs, and symptoms of chronic endometritis? What treatment would you adopt in a case where menorrhagia was a

prominent symptom?

#### October 1894.

1. Rupture of Uterus—(1) Causes; (2) positions of rupture; (3) symptoms and signs; (4) treatment?

2. In what cases would you be called upon to perform craniotomy?

Describe the operation.

3. Describe the directions you would give for feeding by the hand a

child a month old, when the mother was unable to nurse.

4. What polypi are met with in connection with the uterus? Give their sites, symptoms, and treatment.

#### January 1895.

1. Mention the principal causes of abortion, and describe the treatment of a case of threatened abortion at the third month.

State the diagnosis and treatment of presentation of the shoulder.

3. Describe the mechanism of spontaneous evolution.

4. Name the principal displacements to which the uterus is liable. Give the symptoms and treatment in each displacement.

### April 1895.

1. How would you diagnose and treat the varieties of extra-uterine

pregnancy?

2. Name some of the principal deformities of the pelvis. How are these caused? Describe the methods of measuring the pelvis.

3. What are the causes of delay in the second stage of labour? State the dangers to mother and child, and give the treatment.
4. What is puerperal eclampsia? When does it occur? Give the

causes and treatment.

1. Contrast a male with a female pelvis. Give the normal measurements of a female pelvis.

2. What is accidental, and what is unavoidable hæmorrhage? Give

the causes and treatment of each case.

3. Describe the feeding of an infant with artificial food from time of birth up to the sixth month.

4. Describe (1) erosion of the os; (2) carcinoma of the uterus; (3)

sarcoma of the uterus.

## July 1895.

1. Describe the application of forceps at the brim. Under what circumstances is the operation required.

2. Give the diagnosis and treatment of a case of placenta prævia.

3. How would you treat rigidity of the os in labour?

 Describe (1) amenorrhœa; (2) dysmenorrhœa; (3) menorrhægia. Give the causes and treatment of each condition.

1. How would you recognise a case of twin pregnancy, and how should the labour be managed?

2. When would you be justified in inducing premature labour? Describe the method you would adopt at the seventh month.

3. Describe the fortal circulation.

4. What is a hydatid mole? Give the symptoms and treatment.

#### October 1895.

1. Describe (a) an osteomalachic pelvis, (b) flat rachitic pelvis, (c) kyphotic transversely contracted pelvis.

2. In what cases is version necessary or advisable? Give three

varieties of version and the method of each.

3. Give the causes, dangers, and treatment of prolapse of the funis. 4. Describe the symptoms and treatment of (a) acute, and (b) chronic

ovarian inflammation.

#### January 1896.

1. Give the indications for the use of the short forceps; describe how

they are applied.

- 2. Mention the varieties of face presentation. State which are favourable, and give the treatment usually required in this presentation. Give the causes and treatment of post-partum hæmorrhage.
  - 4. Give the diagnosis and treatment of cancer of the cervix uteri.

#### April 1896.

1. Give the indications for the use of the long forceps.

2. Describe the various methods for the resuscitation of an apparently still-born child.

3. Give the causes, symptoms, and treatment of abortion, and of

threatened abortion.

- 4. Enumerate the varieties of dysmenorrhoea, and give the treatment of each.
- 1. How would you recognize a case of twin pregnancy, and how should the labour be managed?

2. When would you be justified in inducing premature labour? Describe the method you would adopt at the seventh month.

3. Describe the fœtal circulation.

4. What is a hydatid mole? Give the symptoms and treatment.

#### July 1896.

1. What are the dangers to the fœtus in breech presentations? How are these dangers averted?

2. What is accidental hæmorrhage? Give its causes and treatment.

3. Describe the movements of the fœtal head in its passage through the brim of a flat pelvis. How are cases of disproportion, under such circumstances, to be treated?

4. Describe the curette; state for what conditions it should be used,

and how the operation of curetting is performed.

1. Enumerate the signs and symptoms of protracted labour in the second stage.

2. Give the diagnosis and treatment of transverse presentation of the fœtus, mentioning the various positions of the fœtus in this presentation.

3. What is the usual duration of pregnancy? Give an account of the

signs of pregnancy at the end of the fifth month.

4. How is gonorrhoea distinguished from simple leucorrhoea? What pathological conditions may the former lead to?

## Medical Jurisprudence and Public Health.

## January 1894.

1. What are the special facts and circumstances to be noted in the medico-legal investigation of a case of death by firearms—(1) as regards the history of the case, (2) the wound, (3) the weapon and charge employed?

2. What are the external appearances presented in death from asphyxia, and what are the *post-mortem* indications of its occurrence as seen in the brain, respiratory organs, heart, and abdominal viscera?

- 3. What are the usual forms in which oxalic acid and its combinations have been used as a poison; what are the symptoms, treatment, and post-mortem appearances in these cases; and what are the tests for detection of oxalic acid?
- 4. What are the chief contaminations which usually render the air in an ordinary dwelling-house unhealthy, and what are their special sources?

#### April 1894.

1. What do you understand by a corrosive and by an irritant poison? Give an example of each, mentioning the symptoms, treatment, postmortem appearances, and test in each case.

Enumerate the signs of death and specify those which are of exceptional importance in medico-legal investigations, and state why they

are so.

3. What is the meaning attached to the term infanticide in its medicolegal acceptation? What are the principal points to be noted in the examination of the child? Explain the importance of each in preparing a medical report.

4. What are the different sources of water supply and modes of stor-

age for domestic purposes, and the advantages and disadvantages of each respectively?

1. What are the symptoms of acute and those of chronic poisoning by phosphorus? What is the treatment of each form? What are the postmortem appearances, and how would you test for this substance?

2. How would you distinguish between ecchymosis and post-mortem lividity? In what cases is there no appearance of ecchymosis following

a bruise, and why?

3. What are the situations in the heart where rupture of its tissues most commonly happens? Mention the circumstances, pathological and

otherwise, under which these different lesions have occurred?

4. Give a list of six preparations employed as disinfectants, and describe their mode of action, specifying three of them as fitted for use in an occupied apartment.

July 1894.

1. Describe the progress of putrefaction in a dead body, mentioning the external appearances presented, and state such circumstances as accelerate and those which retard the body's reduction to a skeleton.

2. Enumerate the distinctive indications of death by drowning, and state what causes apart from drowning may occasion the death of

individuals in water.

- 3. Describe symptoms, treatment, and *post-mortem* appearances in cases of poisoning by nitrate of potass, and give the tests for detection of that substance.
- 4. What are the physical and chemical characters of wholesome water?

1. How should you proceed to detect the presence of blood-stains found upon a knife, and upon the clothing of a dead body? What circumstances might complicate or render difficult such detection?

What are the symptoms of poisoning by opium? Describe treatment and post-mortem appearances. How should you proceed to test

for this substance?

3. Describe the differences in appearance and other respects between a burn inflicted some hours before, and one inflicted some hours after death.

4. What is understood by ventilation? What are the points requiring attention in regard to the amount of air necessary, and the cubic space to be provided per head?

October 1894.

1. Describe the difference in the symptoms of poisoning by opium, belladonna, and alcohol. With what disease might each of these conditions be confounded?

2. What are the symptoms in acute and in chronic poisoning by tartar emetic? Describe the treatment and post-mortem appearances in each

of these cases, and how you should test for this poison.

3. Enumerate the characteristic appearances collectively indicating whether a dead child had completed the seventh or the ninth month of utero-gestation.

4. What precautionary measures should you adopt in an outbreak of

(1) typhoid, (2) small-pox, and (3) erysipelas?

#### January 1895.

1. Mention the circumstances which, in a dead body, modify (1) cooling, (2) rigor mortis, and (3) putrefaction.

2. Distinguish between an ante-mortem and a post-mortem burn. What are the causes of death after a severe burn?

3. Describe the symptoms, treatment, and post-mortem appearances

in carbolic acid poisoning. Give two tests for the detection of the acid.

4. What is meant by "death-rate," and how is it stated? Mention some of the causes which tend to increase the mortality in unhealthy districts.

April 1895.

 What circumstances and appearances would justify the diagnosis of death from lightning?

2. Describe the "hydrostatic test," and discuss its value as proving

" live-birth."

- 3. Describe the symptoms and post-mortem appearances in acute and chronic forms of phosphorus poisoning. How is Mitscherlich's test per-
- 4. Mention four methods of sewage disposal. Describe one fully, indicating its attendant dangers.

1. Differentiate a linear contused wound of the scalp from an incised

one. What special dangers attend each?

At what period of pregnancy is criminal abortion generally attempted? Enumerate the means commonly employed. In case of death, what postmortem evidence may be found?

3. Mention the three groups of antidotes for poisons. Give in detail

the treatment of opium poisoning.
4. Mention the causes of the influx of sewer gases into a dwellinghouse. What means may be used to prevent this (1) as regards main sewer, and (2) as regards house drains?

## July 1895.

1. Describe the appearances of the body, external and on dissection, after death from suffocation by overlaying.

2. Describe fully two methods of examining a supposed blood stain,

What errors may arise, and how may they be avoided?

3. (1) Describe the symptoms and treatment of poisoning by aconite. (2) What is the poisonous dose of aconitia? (3) What method of analysis is applicable?

4. Describe fully a method of satisfactorily disinfecting a room in which

there has been a case of small-pox.

1. Describe the post-mortem appearances found in death from starvation. Mention the order in which the tissues waste.

2. Mention the causes of death following submersion in water, and

briefly describe the *post-mortem* appearances in each.

3. (1) How may poisoning by oxalic acid and its poisonous salts accidentally occur? (2) Describe the symptoms and treatment of poisoning by oxalic acid, and mention the smallest fatal dose.

4. What fevers are principally spread by (1) water, (2) air, and (3)

food?

Three Questions only to be answered. The Candidate may answer either No. 1 or No. 2, but must answer Nos. 3 and 4.

#### October 1895.

1. How may the identity of a dead body be established—(a) From external examination? (b) On dissection?

2. What are the duties of a medical man when called to inquire into

a case of rape?

3. How may chronic lead poisoning occur? How much lead may give rise to symptoms of poisoning? What are the symptoms? How is the poison eliminated from the system?

4. Enteric fever having occurred in a village, what steps must be taken

to prevent its spread?

#### January 1896.

1. State in what respects strangulation and hanging differ as a mode of death as regards (1) the position of the marks, (2) the cause of death, and (3) as to the probability of their being suicidal or homicidal.

2. To what points should attention be paid in the examination of persons suspected of feigning (1) epilepsy, (2) paralysis, (3) insanity?

3. What is the smallest amount of phosphorus that may be a fatal dose? Describe the symptoms of an acute case of phosphorus poisoning. When do the symptoms usually occur, and how long may they last? Describe the *post-mortem* appearances that may be observed.

4. How are small-pox, scarlatina, and measles spread through a community? At what stage is each of them most communicable? By what

means may their extension be checked?

## April 1896.

1. Describe the various modes in which a man who has died in the water may have come by his death. If the mode was from asphyxia and the body examined soon after death what external and internal appearances may be observed?

2. What forms of mental unsoundness free from criminal responsibility,

and what forms render civil acts void?

3. What symptoms would be produced by the swallowing of two and a half grains of cyanide of potassium? Would that dose be fatal? What treatment should be employed? What post-mortem appearances have been observed? By what tests can cyanide of potassium be recognised?

4. Name three specific diseases recognised as being disseminated by drinking water, and give the reasons for regarding the water as their

source.

1. What is meant by superfectation? Give the arguments for and against its occurrence. How has it been explained?

2. Describe three ready methods of resuscitation from drowning, stating

the comparative advantages of each.

3. Name some of the common poisonous salts of copper. What symptoms do they produce when swallowed? When do the symptoms occur? What treatment should be adopted? After what period does death occur? What post-mortem appearances are characteristic?

4. In what circumstances do relapsing and typhus fevers occur? Considering their causation, what can be done to prevent their outbreak and

limit their extension in military as well as civil life?

### July 1896.

1. State the signs of maturity in a male fœtus. What should be the rate of development of a healthy child during the first year after birth?

2. Is death by hanging likely to be suicidal or homicidal? What may be the cause of death, and what appearances after death may be found?

3. In what circumstances does poisoning by coal gas usually occur? What percentage in the air of a room would be poisonous, and what percentage has been estimated to be fatal? What is supposed to be its active poisonous agent? Describe the most constant after-death appearances. How should a case be treated?

4. In the occupation of a district recognised as malarial, what directions should be given as regards prophylactic measures? What drugs may be

employed?

1. What appearances in a body found suspended would enable a medical jurist to certify whether the body was suspended during life or after death?

2. What points are chiefly to be noted in a medical examiner's report in a case of life assurance, (1) as to the family history? (2) as to the

personal history? (3) as to the personal examination?

- 3. What symptoms are occasioned by a single poisonous dose of digitalis? What is a fatal dose? By what conditions of the person taking it are the effects modified? To what are the poisonous effects due? What are the chief points to be attended to in the treatment of the case?
- 4. How would you ascertain the state of ventilation of a room (1) as regards the movements of the air? (2) as regards the impurity of the air?

# The Diploma in Public Health.

## FIRST EXAMINATION.

## Meteorology.

All of which are to be answered.

## May 1894.

Describe the aneroid barometer.

2. What diseases in this country are specially fatal (1) in winter, (2) in summer, and (3) in spring?

3. Compare the winter climate of the Channel Islands with that of

Folkestone.

May 1895.

1. Explain the mercurial barometer, and shew the use of the Vernier

in reading the height of the column.

2. What thermometric observations should be made in the study of the climate of a locality for medical purposes, and how should the thermometer be placed?

3. In Great Britain what diseases become specially fatal in winter and

summer?

#### October 1895.

 Describe the Stevenson Box commonly employed for holding the thermometers used in making temperature and hygrometric observations.

2. Explain why dry cold winds affect the health of delicate persons injuriously, and when do such winds specially prevail?

3. In what ways may the climate of a locality be affected by topographical features?

May 1896.

1. Describe the Rain Gauge, and say how it should be placed when used for making observations.

2. What is meant by Isothermals, and what is the difference between the direction of the Isothermals for Great Britain in January and their direction in July?

3. At what season of the year are deaths from phthisis most numerous, and does the maximum death-rate from phthisis occur at the same time as that from pneumonia and bronchitis?

## Chemistry.

## May 1894.

1. State step by step the process for determining the amount of water in milk. How many grammes of water should be contained in 100 cc. of average milk?

2. What is meant by the cold aqueous extract of flour? How may its

amount be determined? What is its normal percentage?

3. What chemical substances render water hard? How may this hardness be measured? How may hardness of water be removed? State the chemical changes which take place in such cases.

## May 1895.

1. Explain step by step the process for measuring the amount of carbonic oxide (CO) in a given sample of air.

2. What are the principal constituents of cheese? State step by step

the process for ascertaining the amount of fat and caseine in cheese.

3. What are the principal inorganic constituents which render water unsuitable for domestic purposes? How may the presence of lead be detected in water, and what percentage of lead in drinking-water would render the water dangerous for drinking purposes?

#### October 1895.

1. What is the average percentage of water in bread? How may the amount be accurately determined? What evil effects may result from too much water being present in bread?

2. Explain step by step the process for determining the presence and

amount of chicory in coffee.

3. Describe a method for determining the quantity of oxygen dissolved in a sample of potable water.

## May 1896.

1. What are the principal constituents of butter? State the percentage of each, and explain the process for determining the amount of fat in a given sample of butter.

2. Explain step by step the process for ascertaining the amount of tannin in a given sample of tea. What are the principal adulterations

found in tea?

3. What is ozone? What are its chief sources in the atmosphere, and what effects are produced by its presence in the atmosphere? Mention a test for its presence.

## Physics.

## May 1895.

1. State Boyle's law. A gas has a volume of 100 cc. when the barometer is at 700 mm. and the thermometer is at 10° C., what is its volume when the barometer is 760 mm. and the temperature is 20° C.?

2. What is meant by specific gravity? How would you determine the

specific gravity of a piece of iron?

3. What is the influence of pressure (1) on the boiling point of water, and (2) on its freezing point?

#### October 1895.

1. Distinguish between the following terms, viz., heat, temperature, specific heat, latent heat.

2. Describe the principle of the hydraulic press.

3. A body is projected into the air at right angles to the surface of the earth with the velocity of a thousand feet per second, how high will it rise?

### May 1896.

What is meant by capillarity? State what you know of its causes.
 Distinguish between radiation, convection, conduction. Give an example of each.

3. Describe the action of an ordinary syphon.

## SECOND EXAMINATION.

## Epidemiology and Endemiology.

All the Questions to be answered.

## May 1894.

1, Describe the endemic conditions which favour the development of malarial fever, and the morbific elements upon which it is supposed to depend.

2. Describe the diagnosis of relapsing fever, and its etiology in relation

to preventive measures.

3. State the breed of cattle most liable to tuberculosis, the conditions which favour its development in the animal, and those which conduce to its transmission to man. Also the measures you would take to prevent danger to mankind from (1) the milk; and (2) the beef.

### May 1895.

1. Describe the geographical distribution of the filaria medinensis. State how it affects man, and what is known of its life history.

2. What is the cause of diphtheria? and what measures would you

take to check the spread of the disease?

3. Mention any diseases that might be disseminated by city manure, stating the nature and amount of proof which would convince you that dissemination had thus occurred.

#### October 1895.

1. Mention any diseases which may arise from the consumption of diseased grain, and their treatment.

2. Describe the symptoms and signs indicative of trichinosis; also its

etiology, usual course, and treatment.

3. Describe the various symptoms which would lead you to suspect poisoning by sewer gas. Differentiate them from symptoms due to want of ventilation only.

## May 1896.

1. What is the potato disease? and when widespread, how does it affect the health of man?

2. Mention some of the most common sources of danger to health arising from environment incidental to occupation, and the nature of the

prophylaxis to be adopted in each case.

3. Should a case of scarlatina occur on a farm, what measures would you adopt to prevent the spread of infection: (a) from the patient? and (b) from the farm produce?

## Practical Sanitation.

All the Questions to be answered.

## May 1894.

1. Port Sanitary Authority—A ship arrives from a port on the Continent declared to be infected with cholera. What are the duties of the medical officer of the port sanitary authority—(1) as regards the ship, and (2) as regards the crew and passengers?

2. Epidemic Summer Diarrhœa of Children—(1) In what localities in Britain and at what seasons of the year is this disease most prevalent?

(1) What are the views of Dr Ballard as to its causation?

3. Sewer Air—(1) Wherein does the air in sewers differ from outside air? (2) What grounds are there for attributing the origin and spread of special diseases (e.g., Zymotics) to the action of sewer air?

#### May 1895.

1. School Hygiene—State the necessary dimensions of a class-room (in a Board School) to accommodate sixty juveniles. What form of desks would you recommend, and how would you arrange the windows as regards lighting?

2. Water Supply—Discuss the advantages and disadvantages of a water supply to a town—(1) from a river, and (2) from a moorland

gathering-ground.

3. Infectious Disease—Scarlet fever breaks out in a small poorhouse situated in a rural district. State what precautions you would adopt to prevent the spread of the disease.

#### October 1895.

1. Typhoid Fever—Typhoid fever has appeared in a village which has no public water supply. What steps would you take to prevent the spread of the disorder? In particular, state how you would deal with the typhoid stools of those already affected.

2. Water Supply—What are the leading sources of water supply for a community, large or small? State under each head the advantages or

disadvantages which it presents.

3. Ventilation—What is the amount of cubic space which should be allowed for the room of a workman (say a cobbler), who works in it? How often should the air be changed in an hour? What cubic space should be provided for an ordinary general hospital? What amount for a hospital for infectious diseases?

## Sanitary Law and Vital Statistics.

All the Questions to be answered.

### May 1894.

1. What are the powers of the Sanitary Inspector under the Public Health (Scotland) Act, 1867, in respect of unsound food; and of the Inspector under the Sale of Food and Drugs Acts, 1875 and 1879, in respect of adulterated food? Describe the procedure required on a purchase being effected to make it legal for purposes of prosecution.

2. What is an "underground" dwelling, as defined by the Public Health Act; what provisions are required to render it habitable; and

what are the penalties of overcrowding it?

3. Discuss the value of a decennial, as compared with a quinquennial, census. What are the objects of a census, and how may a population be

numbered at inter-censal periods?

4. In a population of 100,000 persons, the annual death-rate last year was 18 per 1000; in an adjoining population of 600,000 persons, 22 per 1000. Would it be correct to say that the mean death-rate of the two places was 20 per 1000?

May 1895.

1. What is the general influence of (1) age, and (2) sex distribution, on the death-rate of a community? What is meant by a "corrected" death-rate, and what factors must be considered in determining the true death-rate of a watering place or a health resort?

death-rate of a watering place or a health resort?

2. Define the terms "probable error," "mean error," "average," "mean," as applied in statistical practice. Illustrate them from the following figures—viz., 19, 24, 18, 20, 22, 21, 18, 23, 20, 18, which represent the annual death-rates for a decennium in a certain population.

3. What is the law respecting—(1) the exposure of a person suffering from an infectious disorder (a) in public places; and (b) in public conveyances; (2) respecting the disposal of infected clothing; and (3) the letting of an infected house?

4. What are the provisions of "The Infant Life Protection Act,

1872 "? Discuss its value, and the necessity for its existence.

#### October 1895.

1. State the provisions of the Dairies, Cowsheds, and Milk-shops Order, 1885, and detail the provisions specially dealing with the existence of disease in the cattle of a dairy.

2. What is a "retail" bakehouse? What are the enactments regard-

ing its condition of sanitation?

3. Discuss the existing provisions in Scotland for death registration and death certification, and give your views respecting their efficiency.

How far are statistics affected by them?

4. To what extent does density of population *per se* affect the mortality of any population? Are there any other factors necessary to be considered before attributing this as the cause of a particular death-rate?

## May 1896.

1. What are the powers conferred on the Secretary of State for Scotland and the Board of Supervision for the protection of the inhabitants in the presence of a formidable epidemic such as cholera?

2. Define the meaning of a "common" lodging-house. State what regulations a Local Authority may make regarding them, and what the

penalties are attaching to disobedience of these by the occupier.

3. What is the respective value of a weekly, quarterly, and an annual death-rate? Do they illustrate the incidence of mortality in a popula-

tion, and how far are they comparable year by year?

- 4. In three different general hospitals in three different towns, the mortality per cent of the total beds was 12, 18, and 22 respectively. Would it be correct to conclude that No. 1 shewed better results than No. 2, and No. 2 than No. 3? Give reasons for your conclusions.
- 1. You are asked to advise (1) as to the wholesomeness of a proposed supply of water; and (2) whether a certain water supply may have disseminated enteric fever. What value would you attach to bacteriological and chemical examination respectively of the water in guiding you in your report?

2. State the chief causes of dampness in a dwelling, and the means you

would adopt for its prevention in each case.

3. Describe in detail the method of disposal which you would advise to be adopted with respect to the sewage of a riverside town where there

are a number of dye-works and woollen mills.

4. State fully how you would conduct an inquiry into the sufficiency of the ventilation of an hospital. Describe the nature and mode of use of the instruments you would employ, and mention the general nature of the calculations you would think it necessary to make.

# Royal College of Surgeons.

## SINGLE QUALIFICATION EXAMINATION.

## Surgery and Surgical Anatomy.

January 1895.

1. Describe, briefly, Colles' fracture of radius, its causes, symptoms, treatment? What bad results may follow unsuitable treatment?

treatment? What bad results may follow unsuitable treatment?

2. Describe a case of moist gangrene. Detail its usual causes, and the principles which should guide treatment.

3. What is varicocele? Describe its treatment, palliative and radical.

How would you treat a chronic case of patellar bursitis?
 Give the boundaries and contents of the ischio-rectal fossa.

6. Detail the dissection necessary to expose and tie the femoral artery in Hunter's canal.

April 1895.

1. Distinguish an early case of hip disease from one of sacro-iliac disease.

2. How would you treat a case of fracture of the olecranon process, the result of muscular action?

3. Describe a case of intussusception in a child.

4. Detail the symptoms which would lead you to suspect temporosphenoidal abscess of brain.

5. Describe operation for removal of Gasserian ganglion in obstinate

neuralgia.

6. Describe the axilla, its boundaries and contents.

## July 1895.

1. How would you treat a case of fracture of the olecranon process which is the result of direct violence?

2. Describe a typical varicose ulcer-its appearance, usual seat, causa-

tion, and treatment.

- Give symptoms and treatment of prostatic retention in a feeble old man.
- 4. Give, briefly, the pathology, symptoms, and treatment of a dentigerous cyst of jaw.

5. Give a brief account of the lacrymal apparatus as bearing on its

surgery.

6. Describe the operation of ligature of the lingual artery.

#### October 1895.

1. Describe, briefly, the symptoms and treatment of a case of acute osteo-periostitis of femur, and also, the possible sequelæ.

2. What symptoms would indicate the necessity for the operation of .

tracheotomy in a case of membraneous croup?

3. Describe any method you know by which gastrostomy may be performed.

4. Describe a chronic indurated ulcer of leg.

5. Describe, briefly, how middle ear disease may cause sinus-phlebitis.

6. Describe accurately the structures divided in the operation of left

6. Describe, accurately, the structures divided in the operation of left lumbar colotomy.

## FELLOWSHIP EXAMINATION.

## Surgery.

All of which are to be answered.

## January 1894.

Describe the operation of excision of the eyeball.

2. Under what circumstances do cerebral herniæ occur? Distinguish the varieties and how they should be treated.

3. What symptoms attend the entrance of air into a vein, and how should it be treated?

#### April 1894.

1. Wound of Nerve in Man—Describe the changes of structure, macroscopic and microscopic, which have been observed in nerve trunks after complete section (including the process of re-union). What effects may be produced in muscles by section of their motor nerve?

2. Give the symptoms of sub-coracoid dislocation of the humerus,

explaining minutely the causes of the characteristic attitude and motor disabilities.

3. Undescended Testicle in the Inguinal Canal—What evils may attend it? How would you treat it if complicated by hernia, describing any operation you would adopt, and giving your reasons for it?

## July 1894.

 Explain the distinguishing features—anatomical and clinical—of aneurismal varix, cirsoid aneurism, and pulsatile nævus.

2. Under what circumstances and in what parts is the bladder apt to

be ruptured? Give the symptoms of the leading varieties.

3. Describe excision of head of femur, giving the tissues which have to be cut.

#### October 1894.

1. How would you perform the operation of transfusion of blood?

2. Name histiological changes in lipoma nasi, and describe operative treatment.

3. Describe the treatment of a wound of the abdominal wall, with protrusion of intestine.

### January 1895.

1. Give the symptoms of tubercular disease of the prostate. Contrast its morbid anatomy with that of senile enlargement of the prostate.

2. Describe the malformations—epispadias, hypospadias, and extroversion of the bladder. What operations have been performed in extroversion?

3. Fracture of the Cervical Spine—At what level is a consequent destruction of the cord incompatible with life, and why? What causes tend to shorten life in paraplegia from fracture below that spot?

## April 1895.

1. Distinguish central sarcoma and chronic abscess of the head of the

tibia. Give the treatment appropriate to each.

2. Empyæma—Describe the method and precautions you would adopt in opening it, giving your reasons. What forces are subsequently at work in obliterating the cavity?

3. Explain the mode of production and anatomical changes in hallux

rigidus, flat-foot, and knock-knee.

## July 1895.

1. Give the pathology and treatment of sarcoma affecting a long bone.

2. Describe fully a method of excising the kidney.

3. Describe the early symptoms of carcinoma and adenoma of the mamma.

#### October 1895.

Describe the various enlargements of the thyroid, and give the surgical treatment of cystic goitre.

2. Give the symptoms of malignant stricture of the oesophagus, and

describe a method of performing gastrostomy.

3. What are the causes, symptoms, and treatment of cerebral abscess?

#### January 1896.

1. Give the symptoms, pathology, and treatment of acute ostcomyelitis affecting the lower end of the femur.

2. Describe the various methods recommended for disarticulation at the knee.

3. Give the diagnosis and treatment of tubercular disease of the wrist.

## April 1896.

- Give the general symptoms and treatment of tumour of the bladder, and describe the varieties met with.
- Describe fully an operation for the radical cure of inguinal hernia.
   Give the diagnosis and treatment of an abscess in the antrum of Highmore.

July 1896.

1. Give the symptoms, pathology, and treatment of the various forms of appendicitis.

2. Describe fully the operation of lithotrity.

3. Give the pathology, diagnosis, and treatment of psoas abscess.

## Surgical Anatomy.

All of which are to be answered.

## January 1894.

 Describe the course and distribution of the arteries in the sole of the foot, and the causes of difficulty in arresting hæmorrhage in wounds of that region.

2. Give the anatomy of the semi-lunar cartilages of the knee joint, and explain anatomically their dislocation, and the cause of its symptoms.

3. Give the anatomical relations of the cocum and its appendix, and describe the operation for exposing the appendix.

## April 1894.

1. Describe the relations of vessels and nerves to the lower jaw.

2. Describe the extent, position, and relations of the cocum.

3. If the brachial artery be ligatured three inches above the elbow, describe the anastomoses by which the circulation in the forearm would be maintained.

#### July 1894.

Describe the relations of the innominate artery.

2. Supposing a man to be stabbed in the medium line of the abdomen, midway between the ensiform cartilage and the umbilicus, and the instrument to pass straight to the spine, mention in order the parts likely to be pierced.

3. Enumerate in their proper relations the various structures which

would require division in excision of the cuboid bone.

#### October 1894.

1. Describe the anastomoses which carry on the circulation when the

axillary artery is thrombosed throughout its whole extent.

2. Describe the arrangement of tendons at the wrist, anteriorly and posteriorly, and explain the occurrence of diffuse suppuration in the anterior tendon sheaths, and its greater frequency in connection with certain digits than with others.

3. Mention seriatim the parts cut in nephrotomy for calculus, and give the anatomy of the pelvis of the kidney in relation to this operation.

## January 1895.

1. Describe arrangement of bones, ligaments, and tendons whereby the arch of the foot is maintained; and the anatomical alterations that are found in flat-foot.

2. Describe the structure and course of the cranial venous sinuses. Mention the injuries and operations in which they may be wounded, and the precautions to be taken against hæmorrhage from them.

3. Describe the lachrymal apparatus from the gland to the nose, and the method of catheterising the duct.

## April 1895.

1. Give the muscular distribution of the ulnar nerve, and describe the paralyses and contractures which follow its division at the elbow.

2. Describe the course of the internal maxillary artery. In what

operations may it be injured, and how is this risk to be met?

3. Describe the relations of the bile ducts, and mention the structures that may become adherent thereto in case of obstruction by a calculus.

### July 1895.

1. What are the anatomical conditions in connection with the scalp which favour, in some instances limitation, in others diffusion, of suppuration?

2. Mention the symptoms following division of the musculo-spiral nerve in the middle of the upper arm. Explain these anatomically.

3. Mention the various structures which form the spermatic cord. Where do its arteries arise and its veins terminate?

#### October 1895.

1. In which fracture of the base of the skull, and in what situations, does the consequent bleeding manifest itself externally, and in which does cerebro-spinal fluid escape externally? Explain the facts anatomically.

2. Describe the various synovial sacs and sheaths in connection with

the flexor tendons in the palmar aspect of the hand and wrist.

3. What are the anatomical arrangements which limit the spread of an abscess in the ischio-rectal fossa?

#### January 1896.

1. Describe the arrangement of the motor centres of the cortex cerebri. How can these be best mapped out on the surface of the scalp?

2. Mention the various structures which normally penetrate the

anterior layer of the triangular ligament.

Describe the anastomosis which establishes the collateral circulation after ligature of the superficial femoral artery at the apex of Scarpa's triangle.

April 1896.

1. What symptoms follow paralysis (a) of the third nerve; (b) of the sixth nerve; and (c) of the first division of the fifth nerve? Explain these symptoms anatomically.

2. What anatomical facts influence the extension of an abscess in the axilla? Where should such an abscess be opened, and why?

3. Describe shortly the arrangement of the structures divided or exposed in lumbar colotomy.

## July 1896.

1. Describe the cavity of the tympanum and its relations to important surrounding parts.

2. Mention the symptoms following division of the ulnar nerve above

the wrist.

3. Mention the various structures divided in Syme's Amputation.

## OPTIONAL SUBJECTS.

## Ophthalmic Surgery.

All of which are to be answered.

#### October 1894.

1. Describe the condition of pannus occurring in the course of granular conjunctivitis (trachoma), and mention the methods of treatment recommended for its cure.

2. In what diseases does mydriasis occur? Mention the principal mydriatics employed in Ophthalmic Surgery. How is the effect of atropine on the pupil explained?

3. Give the symptoms, course, treatment, and prognosis of tobacco

amblyopia.

### April 1895.

1. What is the form of amblyopia in retinal anæsthesia, retro-bulbar neuritis, migraine, lead-poisoning?

2. What operation would you perform for cataract complicated with (1)

a dense capsular opacity, and (2) a sub-luxation of the lens?

3. Describe the methods of transplanting mucous membrane and skin, and the conditions in which they may be advantageously employed.

#### July 1895.

1. What are the ophthalmoscopic appearances, subjective symptoms, and the prognosis of senile central choroiditis?

2. How do you distinguish between simple glaucoma and optic atrophy?

3. What operations are suitable for the different forms of entropion? Describe one operation in detail, with the dressing and after-treatment you would adopt.

#### October 1895.

1. What injuries or diseases of one eye are liable to induce sympathetic inflammation in the other? Mention the theories advanced to explain the occurrence of sympathetic ophthalmia.

2. Mention the methods of operating for artificial pupil, and describe

the operation of iridotomy.

3. Describe the appearance of the fundus oculi in chronic choroiditis disseminata.

#### January 1896.

1. Describe a case of severe hypopion-keratitis (abscess of cornea), and mention the treatment you would adopt.

2. What is homonymous hemianopsia? Explain its pathology.

3. What are the conditions that may give rise to epiphora (watery

eye)? How would you treat chronic inflammation and distension of the lachrymal sac.

July 1896.

1. What views are entertained as to the causation of increased tension in glaucoma? Which do you consider most correct?

2. Describe the symptoms and ophthalmoscopic appearances in detachment of the retina. What treatment would you adopt?

3. Describe the operation of advancement of the internal rectus for divergent strabismus.

## Aural Surgery.

All of which are to be answered.

April 1895.

1. Describe the symptoms and treatment of a case of inflammation of the middle ear.

2. Describe the common traumatic lesions of the ear.

3. Describe the employment of posterior rhinoscopy in the diagnosis of ear affections.

October 1895.

1. Describe the phenomena of chronic non-suppurative inflammation of the middle ear; its varieties, consequences, and treatment-

State what you know on the subject of simulated deafness.

3. Describe the employment of the tuning fork test in the diagnosis of deafness of the internal and middle ear.

July 1896.

1. What are the causes and mode of production of tinnitus aurium?

2. What syphilitic affections are met with in connection with the

ear; name, and shortly describe them?

3. Describe Valsalva's and Politzer's methods of inflating the middle ear, and compare them. Describe the ausculatory phenomena which attend upon inflation in a normal ear and in cases (a) of obstruction, partial or complete, of the eustachian tube; (b) of fluid accumulation in the tube or tympanum; (c) in perforation of the membrana tympani.

## Laryngeal Surgery.

All of which are to be answered.

October 1894.

1. Describe the different causes of stenosis of the larynx. State what may be necessary to relieve this condition under the different circumstances.

2. What are the diagnostic symptoms of empyema of the antrum of Highmore? Give detailed account of the operation, and the after-treatment which you prefer.

3. Give causes, symptoms, prognosis, and treatment of septic pharyngitis.

July 1895.

1. What are the symptoms, pathology, prognosis, and treatment of lupus of the larynx?

2. Mention conditions favourable to production of hay-fever. Describe

course of an attack, and the treatment you would advocate. What is the prognosis?

3. Give the etiology, symptoms, and treatment of herpes of the

pharynx.

January 1896.

1. What are the causes of retro-pharyngeal abscess? Describe its appearance, and give the symptoms and treatment.

2. Describe the causes, laryngoscopic appearances, symptoms, and

treatment of acute inflammatory cedema of the larynx.

3. To what symptoms do adenoid or post-nasal vegetations give rise? Describe the various methods of operating for the removal of these growths.

## Cerebral and Spinal Surgery.

## January 1895.

1. When cerebral compression is presumably caused by extra cerebral hæmorrhage, what is the usual source of the bleeding in fatal cases? How has it been suggested that this may be treated by operation? Indicate the area for such operations, and describe the procedure in each.

2. Name the motor areas grouped round the fissure of Rolando, accord-

ing to Charcot, Hitzig, and Ferrier.

3. Pott's disease of the cervical spine—sites, symptoms (in each variety), complications, with a detailed resumé of the various methods of treatment which have been adopted.

## July 1895.

1. "Welling" from the ear—causation anatomically explained. Circumstances in which it occurs. Characters (physical and chemical) of the liquid. Treatment of the condition.

2. What are the causes, symptoms, and signs of fracture-dislocation of

the vertebral column in the lower cervical region?

3. In what cases of head injury may it be said, speaking generally, that trephining is contra-indicated?

#### April 1896.

1. Describe the causes, symptoms, and treatment of fracture of the base of the skull, through (a) the anterior; (b) the middle; and (c) the posterior fossæ.

2. Describe the site and the operation of trephining for abscess of the temporo-sphenoidal lobe. What important structure must be avoided in cutting through the skull? What further steps should be ventured on if the abscess is not disclosed on the surface of the brain?

3. Potts' disease, spinal nervous symptoms, early and late, in this

condition.

## Abdominal Surgery.

#### January 1894.

1. What symptoms would suggest the necessity for the operation of pylorectomy? How is it performed?

2. Describe the symptoms and surgical treatment of an impacted cal-

culus in the ureter.

3. Describe the symptoms and treatment of acute intussusception.

## July 1895.

1. What cases would render the operation of duodenostomy necessary, and how is it performed?

2. Give the symptoms of acute volvulus. Detail its most common position, and indications for operation.

3. Describe the operation of lumbar nephrectomy.

## July 1896.

1. What cases are suitable for the operation of gastrostomy, and how is it performed?

2. Give the diagnosis and treatment of hydatids of the liver.

3. What cases of tubercular peritonitis are suitable for active surgical treatment?

## Gynæcology.

## April 1895.

1. Incomplete abortion—describe the symptoms to which this condition may give rise, and detail the treatment.

2. Give the symptoms, course, and treatment of a case of fibrous

polypus of the uterus.

3. Chronic ovaritis—what are its causes, course, diagnosis, and treatment?

#### July 1895.

1. What are the symptoms of extra-uterine gestation in the earlier months? State the various courses the disease may take, and describe the treatment.

2. Menorrhagia-what are the causes which give rise to this condition?

Give the treatment of each.

 Give the diagnosis and treatment of a case of cancer of the body of the uterus.

#### April 1896.

Retroversion of the uterus—(1) symptoms, (2) causes, (3) diagnosis,
 treatment.

2. Contrast the differential symptoms between perinterine inflammation and pelvic hematocele.

3. Cystitis-symptoms, diagnosis, treatment.

#### July 1896.

 Give the signs, symptoms, and diagnosis of ruptured tubal pregnancy in the earlier months, and describe the treatment.

2. Mention the position, symptoms, diagnosis, and treatment of pro-

lapsed ovary.

3. Describe the lesions about the Cervix which might be mistaken for carcinoma, and give the differential diagnosis in each case.

## Orthopædic Surgery.

## April 1894.

1. Give the distinctive characters of a case of spasmodic wry-neck, and describe accurately the operation of neurectomy, as practised for its relief.

2. Describe the condition of hallux valgus, and its appropriate treat-

3. What are the chief muscles concerned in the condition of talipes calcaneus? What operations may be performed for its relief?

## July 1894.

 Describe the changes which may occur in the bones of the thorax in a well-marked case of rickets.

2. Describe the ligaments of the hip joint, and discuss their relation to the various dislocations of the joint.

3. Give the pathology and treatment of a case of compound ganglion.

#### October 1894.

1. Give the pathology and treatment of congenital talipes.

2. Describe the changes that take place in paralysed limbs, and mention the kind of cases in which electricity is beneficial.

3. Give the pathology and treatment of genu valgum.

## April 1895.

1. Give course and insertion of peronei muscles. Under what circumstances may it be necessary to divide them, and at what points are they usually divided?

2. Describe accurately the chief forms of osteotomy which have been

widely used in cases of genu valgum.

3. Discuss shortly the different forms of wry-neck.

## Venereal and Genito-Urinary Diseases.

All of which are to be answered.

## January 1895.

1. What parts of the genital tract, in women, are affected by gonor-rhea? May life be endangered by extension of the disease, and how?

Describe the pathology of the different phases of brain syphilis.
 What are the symptoms of tumour of the bladder? If removable, describe the procedure.

#### April 1895.

1. In what sex is gonorrheal rheumatism most frequent? State reasons for answer.

2. Are local sores and syphilis caused by one poison? If not, why not?

3. Under what conditions would immediate rupture of a stricture of the urethra be a preferable operation to internal section?

#### July 1895.

1. What is prostatic enlargement, and how is it distinguished from chronic inflammation, malignant and tubercular disease of the gland?

2. What tumours occur in the bladder? Mention the chief symptoms,

and describe an operation for their removal.

3. What is syphilisation? What objections can you urge against the theory?

## October 1895.

1. What are the symptoms, prognosis, and treatment of a penetrating wound of the kidney on its anterior and posterior surfaces?

2. What operative measures may be adopted in a case of complete atomy of the bladder following prostatic enlargement?

3. Describe the differential features of syphilitic and rheumatic iritis.

## January 1896.

- 1. Describe the evolution, course, and results of gumma of the tongue.
- 2. Explain the pathology of chordee, and how it should be treated.
- 3. Describe the operation of amputation of the entire penis.

## April 1896.

1. Under what conditions do Cowper's glands inflame? Describe the symptoms and the treatment.

Explain the pathological processes by which the brain becomes affected in syphilis.

3. Describe the abnormal positions of the testicle in the scrotum.

## July 1896.

1. At what periods in the course of syphilis may alopecia appear? How does it differ in appearance and prognosis?

2. What are the causes, symptoms, and treatment of gonorrheal

cystitis?

3. What are the distinguishing characters of chronic non-specific, tubercular, syphilitic, and cancerous orchitis?

## Dental Surgery.

#### October 1892.

1. Describe the different varieties of the odontomata, giving the char-

acteristic peculiarities of each.

2. What are the causes of undue hæmorrhage after tooth extraction? How does it usually commence and proceed? What are the modes of treatment?

 Mention some reflex neurotic and other conditions in distant parts with which dental lesions may be associated as the cause or the effect of such conditions.

## Advanced Anatomy.

#### October 1895.

 Describe the course and distribution of the second division of the fifth nerve.

2. The anterior abdominal wall having been removed, give the dissection to expose the entire length of the portal vein. What viscera return their blood into it?

3. At what joints do the movements of inversion and eversion of the foot occur? Name the muscles which produce these movements, giving the attachment to the foot of each muscle.

## Surgical Pathology and Morbid Anatomy.

## April 1894.

1. What is the pathological explanation of the cerebral abscess which often follows middle ear disease?

2. Explain the lordosis and apparent lengthening which in many cases accompany an early stage of tubercular hip-joint disease.

3. What is the pathology of tetanus? Upon what facts and experiments is the modern view based?

## July 1894.

 Explain the pathology of a localised intra-peritoneal abscess when it forms round the vermiform appendix.

2. What are the naked-eye and microscopic characters of a myeloid sarcoma-say of the head of the tibia? What are the usual changes produced in the original bone by such a growth?

Mention the clinical features which distinguish pyæmia from sep-

ticæmia, and explain their pathology so far as you can.

## April 1895.

 Mention the various forms of necrosis of bone. Describe the pathological characters of each as to causation, bone or portion of bone usually affected, and process of separation.

2. Describe the naked-eye and microscopic characters of a wound of

the skin and fat which heals by the first intention.

3. When a patient dies shortly after a severe fracture of the spine produced by overflection, what changes are usually found in the spinal chord and spinal column?

## July 1895.

1. In drawing an analogy between malignant tumours and infective granulomata (say tubercular), what are the points of similarity and the points of difference between them which bear upon the possible microorganismal origin of malignant tumours?

2. Indicate briefly a classification of cysts.

3. If a mixed nerve be subcutaneously divided and the ends kept separate, what macroscopic and microscopic changes may be expected at either end at the expiration of a year?

#### October 1895.

 Explain the relation of Pott's curvature of the spine to paraplegia, when the two conditions co-exist.

2. Contrast the naked-eye and microscopic characters of a corn, a simple wart, and an epithelioma of the skin, and give your views as

to the etiology of each.

3. Describe the mode of union (naked-eye) of a fractured femur,—(1) When the fragments are properly "set." (2) When the fragments over-ride.

#### July 1896.

1. State your views as to the manner in which natural immunity to

diseases caused by micro-organisms is brought about.

2. What epithelial tumours occur in the mamma? Explain on anatomical grounds the clinical course of carcinoma mamma, and its bearing upon operative measures.

3. Give the pathological anatomy of osteitis deformans.

## Midwifery.

## All of which are to be answered.

## January 1895.

1. How do you recognise hydrocephalic head in labour? Describe minutely your treatment.

2. Give the causes of abortion, maternal and feetal, and your treatment

in each case.

3. Septicæmia—symptoms; treatment (1) preventive, and (2) curative.

#### April 1895.

1. In a case of suspected contracted pelvis at the brim, describe the internal and external measurements you would make, and the treatment to be adopted.

2. Concealed internal hemorrhage-diagnosis, prognosis, causes, and

treatment to be adopted.

3. Describe the changes the cervix uteri undergoes during pregnancy, and its alterations after child-birth.

## July 1895.

1. Fœtal asphyxia-causes, symptoms, and treatment.

2. Inversion of the uterus—causes, symptoms, diagnosis, and treatment.

3. Embolism after labour—at what time does it usually occur, and what are the symptoms, causes, and treatment?

#### October 1895.

1. What are the deformities produced in the pelvis by rickets? Describe the mechanism of labour in a rickety pelvis.

2. Rupture of the uterus, symptoms, causes, positions, treatment.

3. Describe step by step Poiro's operation.

#### January 1896.

1. Mention the causes of death of the fœtus in the later months of pregnancy, and give the treatment.

2. Describe the mechanism of a face case in the right mento-posterior

position, and state where the caput succedaneum forms.

3. Describe step by step the operation of Cæsarian section.

#### April 1896.

1. Describe the mechanism of a brow presentation, causes, prognosis, and treatment.

2. What are the various forms of convulsions met with during pregnancy and labour? Mention the causes, and give the treatment of each.

3. Mention the causes of so-called secondary hæmorrhage after labour, and the treatment.

#### July 1896.

 Describe fully a case of placenta previa, and give in detail the treatment you would adopt.

2. State exactly the mechanism of a breech case in the left sacro-

anterior position.

3. Give the symptoms of a retroverted gravid uterus, and the treatment.

## Medical Jurisprudence.

## July 1894.

1. Describe the mode of examination in cases of blood-stains, including the chemical and other tests for blood.

2. What are the characteristic symptoms, treatment, post-mortem appearances, and tests for oxalic acid in poisoning by this substance?

3. What are the chief circumstances to be noted in the identification of the living and of the dead? Mention in detail what indications are afforded by the skeleton in reference to age and sex.

## July 1895.

1. How would you distinguish cases of poisoning arising from opium, belladonna, alcohol, and carbolic acid? giving the symptoms, postmortem appearances, and tests.

2. What are the various circumstances which would lead you to determine in the case of a new-born child found dead whether it had lived

after birth?

3. What are the symptoms of poisoning by copper, and how would you proceed to test for its presence in articles of food?

#### October 1895.

1. What are the symptoms and treatment in poisoning by hydrocyanic

acid? How would you test for its presence?

2. What are the characteristic appearances found on the surface of the body, and, on *post-mortem* examination, in the brain, mouth, air-passages, and viscera of the thorax and abdomen, in death by asphyxia?

3. What are the symptoms and *post-mortem* appearances met with in poisoning by nitre, and what tests would you employ for its detection?

## Hygiene.

## July 1893.

1. Mention the character of good meat, and describe the appearances presented in the carcase after death from pleuro, anthrax, and tuber-culosis respectively.

2. Mention some of the ways in which air becomes vitiated, and state

what diseases are apt to arise therefrom.

Describe the qualitative analysis of a sample of water.

#### October 1893.

Describe in detail the diseases—trichinosis, and measles in the pig.
 Describe the requirements for the ventilation of an hospital ward for twelve beds, giving your reasons for each statement.

3. State your views as to the processes of precipitation, of filtration, and of irrigation, in getting rid of sewage.

# FIRST DENTAL EXAMINATION.

## Chemistry.

Two of which must be answered.

## May 1894.

1. What is peroxide of hydrogen? How is it prepared, and what are its chemical properties?

2. Enumerate the chemical compounds of nitrogen and oxygen, giving the formula of each, and state how hydrated nitric acid is prepared.

3. What is bleaching powder? Explain the bleaching action of chlorine.

#### July 1894.

1. What are the characters of nitrogen? How does it occur in nature, and how may it be obtained pure?

2. Describe Marsh's, Reinsch's, and the colour tests as used in the

detection of arsenic, giving the results in each.

3. In what form does sulphur occur in nature? How is pure sulphur obtained? Describe the actions of heat upon it.

## April 1895.

 What do you understand in Chemistry by the term element? Name ten of the commoner elements.

2. What is the composition of the atmosphere, and how is it ascertained to be a mechanical and not a chemical combination of its constituents?

3. How is chlorine prepared from sea salt, giving as an equation the decomposition which occurs?

### July 1895.

1. What is the chemical composition of gypsum; how is it converted into Paris plaster; and what action occurs in the setting of Paris plaster when used for casting purposes?

2. Mention the peculiar properties of alloys, and give three examples.

3. How is hydrogen gas prepared, and what are its properties?

## April 1896.

1. What is the formula for nitrate of potass; in what circumstances is it found in nature, and what are its chemical characters?

2. Mention any three organic acids. What is meant by the terms "alkaloids," or "organic bases," and how are they in their constitution related to ammonia?

3. What are the characters of chlorine gas; how is it prepared, and how are its bleaching properties explained?

#### July 1896.

1. How is hydrochloric acid prepared from common salt? and give as

an equation the decomposition occurring.

2. In what condition is gold found in nature? What salt of gold is formed when it is dissolved in aqua regia, and what are the tests for salts of gold?

3. In what forms does carbon occur in nature, both in its free state and in combination? What do you understand by a carbo-hydrate?

## Anatomy.

## Two of which must be answered.

## May 1894.

- 1. What are the anatomical characters of a typical dorsal vertebra?
- 2. Describe the course of the brachial artery, with its relations to muscles, nerves, and blood-vessels.
- 3. Describe the situation, form, and size, and general anatomical structure of the kidney.

#### July 1894.

- 1. Describe the anatomical characters of the sacrum and give its articulations.
- Enumerate the cranial nerves, giving their general distribution and functions.
- 3. Describe the external configuration and the internal surface of the auricles and ventricles of the heart.

## April 1895.

- 1. Describe the anatomical characters of the following vertebræ—the atlas, the axis, and the seventh cervical.
- 2. Give a general description of the anatomy of the liver, mentioning the parts with which it is in relation.
- 3. What are the boundaries of the popliteal space, and mention the relative position of the vessels and nerves contained in it?

## July 1895.

- 1. Describe the anatomical characters of a sternal or true rib.
- 2. Describe the general anatomy of the heart, giving the different structures entering into its construction, and their uses.
- 3. Mention the muscles of the pharynx, giving their origin, insertion, and action.

#### April 1896.

- 1. Describe the hip joint, giving the anatomy of the head of the femur and the acetabulum, with the synovial membrane, cartilages, and ligaments, of the joint.
- 2. Name the muscles attached to the lower third of the humerus, giving their origins and insertions.
- 3. Mention the origin, course, and main divisions of the posterior tibial artery.

#### July 1896.

- 1. Describe fully the anatomical characters of the os innominatum.
- 2. Mention the arteries supplying the brain. Describe generally the circle of Willis, and enumerate the sinuses of the dura mater.
- 3. Describe generally the wrist joint, giving the bones, ligaments, and synovial membranes entering into its formation, mentioning all the bones of the carpus.

#### Physiology.

## One of which must be answered.

#### May 1894.

- 1. Describe generally what is meant by a cardiac cycle, and what occurs during its production.
  - 2. Describe the different forms of nerve terminations.

## July 1894.

1. Describe what is meant by (1) reflex action, (2) nervous inhibition, and (3) vasomotor action; and give an example of each.

2. What is the action of the gastric juice, and describe how it is secreted?

## April 1895.

1. Name the active principles of the pancreatic fluid, and mention the peculiar function of each.

2. Describe the microscopic structure of bone, and of hylaine cartilage.

## July 1895.

1. What are the different functions of the liver?

2. What are the microscopic structures met with in an ordinary cerebro-spinal nerve fibre?

#### April 1896.

 Describe the coagulation of blood, and the circumstances on which it depends.

2. Describe the general and microscopical structure of an ordinary cerebro-spinal nerve.

#### July 1896.

1. Describe the different kinds of cartilage met with, and the microscopic structures and appearances presented in each.

2. Describe and explain what is heard on auscultation of the normal heart.

## SECOND DENTAL EXAMINATION.

#### Practice of Medicine.

One Question only to be answered.

#### May 1894.

1. Describe shortly the nature and diagnosis of the ordinary valvular lesions of the heart; mention some of the remedies which might be indicated.

2. What is hænroptysis; what are its causes; and what remedies would you employ in a severe case?

#### July 1894.

1. What are the distinctive characters of diarrhea and dysentery, and what remedies may be employed in their treatment?

2. Describe the symptoms and progress of whooping-cough, and its treatment?

#### May 1895.

1. Mention the chief morbid breathing sounds heard upon auscultation, giving their causes and pathological significance?

2. What are the symptoms, pathology, and treatment of pleurisy?

#### July 1895.

1. What is the therapeutic nature of narcotics, sedatives, tonics, and stimulants, and give an example of a case fitted for each form of remedy?

2. What is the nature of albuminuria; and what are some of the secondary affections and complications apt to occur in such cases?

## April 1896.

1. Describe generally the causes, symptoms, sequelæ, and treatment of diphtheria. Mention three of the pharmaceutical preparations which might be employed in its treatment, and their uses.

2. What are the varieties of cardiac hypertrophy, and what are its causes? Give the medicinal doses of infusion of digitalis, tincture

of aconite, and bromide of potassium.

## July 1896.

1. Describe generally the symptoms of thoracic aneurism. Mention the therapeutic action and doses of any pharmaceutical preparation speci-

ally employed in such cases.

2. What are respectively the causes, symptoms, and distinctive characteristics of gout, and of acute rheumatism? Among the remedies employed in these diseases, to what class do salicin, opium, and carbonate of potass respectively belong? and give the dose and properties of each.

## Surgery.

## One Question only to be answered.

#### May 1894.

1. Enumerate the symptoms and describe the treatment indicated in fracture of a long bone.

2. What is an aneurism; how are aneurisms classified; and what are

the various methods of treatment?

## July 1894.

1. What are the symptoms of acute arthritis, and what pathological changes may accompany it?

2. What do you understand by senile gangrene; in what situations

does it occur; and what are its causes?

### May 1895.

1. How would you diagnose between acute and chronic synovitis and

gelatinous degeneration in a large joint such as the knee?

2. What are the signs of inflammation; to what is each of them respectively due; and what are the modes of treatment accordingly indicated during its progress?

July 1895.

1. Describe in a general manner the operation of tracheotomy, and mention its chief difficulties and dangers.

2. What are the causes, symptoms, pathology, and possible results of inflammation in a long bone?

April 1896.

1. Enumerate the different kinds of fracture occurring in the shaft of a long bone, and describe the successive phases in the process of repair,

giving the principles of treatment.

2. What are the various constitutional conditions under which surgical hæmorrhage is likely to become excessive, and mention the chief modes of treatment, direct and indirect, to be adopted in such cases?

#### July 1896.

1. Enumerate the different sources of danger, direct and indirect, which may occur from wounds, describing three varieties of such cases.

2. What are the most common diseased conditions to which the larger joints are liable? Describe the symptoms of these as occurring in Cartilage, synovial membrane, ligaments, and bone.

# Dental Anatomy and Physiology.

Two Questions only to be answered.

## May 1894.

1. Describe the course and distribution of the superior and inferior maxillary divisions of the fifth pair of nerves, and mention with what other nerves they communicate.

2. Enumerate the muscles of the soft palate; giving the origin, inser-

tion, and action of each.

3. Mention the distinctive characters peculiar to the dentition of the hippopotamus, walrus, and elephant.

### July 1894.

1. How is the process of shedding a milk tooth accomplished? How do the germs of the permanent teeth originate, and in what order and at what ages are these teeth cut?

2. What are the anatomical characters of the lower jaw at birth, and what changes occur in its form between that time and eruption of the

wisdom teeth?

3. Describe the progressive development of the tooth structures in a persistent contrasted with a non-persistent pulp.

## May 1895.

1. What are the different salivary glands; where are they situated; and what difference exists in the nature of their secretions? Describe the characters of their nerve supply.

2. Describe minutely the normal form of the canine, the first molar, and the wisdom tooth in the human upper and lower jaw, and mention

the chief variations met with.

3. What is the typical dental formula in the marsupialia, and what other orders of the mammalia does the dentition of some of them approach?

July 1895.

1. What is peculiar in the dental formula of the rhinoceros? De-

cribe the incisors, upper and lower, and the molar teeth.

2. Describe fully the anatomy of the antrum, with the variations to which its cavity is liable; and give the chief points of difference between the antrum before the commencement of the second dentition and that of the adult jaw.

3. Describe the dental structures met with in the fœtal and adult whale-

bone whale.

#### April 1896.

1. Mention the branches of the maxillary artery, and describe the course and relations of those supplying the upper and the lower teeth, with their mode of distribution in a tooth.

2. Describe the anatomical peculiarities in the poison fang of the viperine and of the colubrine snakes, and the mechanism employed where

it is erected.

3. What is understood by a dental formula? Give examples of a typical carnivorous, rodent and ruminant dentition, naming the animals selected.

## July 1896.

1. Give the order of succession of the teeth of man in the temporary and permanent dentition, and the approximate date at which the development of each commences, and the age at which each tooth appears.

2. Describe fully the dentition of the narwhal, and the mesoplodon

layardi.

3. What is known in reference to the nutrition, innervation, and circulation in the tissues of a fully developed human tooth?

## Dental Surgery and Pathology.

Two Questions only to be answered.

#### May 1894.

1. What are the different methods commonly employed for destroying the tooth pulp, and what are their advantages and disadvantages?

2. Describe the operation of tooth extraction. How is it performed in the case of incisors, canines, bicuspids, and molars in both jaws?

3. In a case where the gold palate of a gold and vulcanite denture is cracked, how may it be repaired?

## July 1894.

1. How are syphilitic and honeycombed or mercurial teeth distinguished from each other, and which teeth are those principally affected in each case?

2. What are the different methods of treatment in acute inflammation

of the pulp in adults and in early childhood?

3. What are the advantages and disadvantages of gold, platinum, and vulcanite for artificial dentures?

### May 1895.

1. What is an odontome? How do these growths originate, and what are some of their principal varieties?

2. Give symptoms, causes, diagnosis, and treatment of empyema of

the antrum?

3. What are the essentials of a perfect plaster cast, and what are the different circumstances requiring attention in order to obtain it?

#### July 1895.

1. What are the peculiar constitutional conditions which may occasion or accompany the hæmorrhagic diathesis? What local and constitutional measures would you adopt on its manifesting itself after tooth extraction?

2. Describe the different forms of the lesion in cleft and in perforate palate. What are the functions which such lesions interfere with in infancy and adult life, and what would regulate your mode of treatment?

3. Under what circumstances would you consider it expedient to fix a plate mounted with more than one tooth by pivoting, and what steps would you take to secure the best result?

#### April 1896.

1. What effects have syphilis, struma, and mercury upon the teeth and gums, and what are the distinctive characters in each of these three causes?

2. What are the causes and nature of salivary fistula? Describe the treatment for such fistula, implicating the parotid duct.

3. Under what circumstances should an endeavour be made to save the dental pulp, and when should it be destroyed? Describe particularly the modes of treatment and their action in both cases.

## July 1896.

1. Mention some of the deformities of the jaws and their causes met

with apart from congenital malformations.

2. Describe fully the pathology of dislocation of the lower jaw, and the structures concerned in its fixation in such cases, with their mode of

3. What are the oral conditions to be considered in supplying artificial dentures, chiefly in respect to (1) remaining sound teeth, (2) stumps, (3) condition of gum and palate?

# Royal College of Physicians.

## SINGLE QUALIFICATION EXAMINATION.

## Medicine.

## May 1894.

 Define multiple neuritis, give its leading symptoms and pathology, and distinguish it from anterior poliomyelitis, locomotor ataxia, and acute ascending paralysis.

2. Mention the chief symptoms of diabetes mellitus, the different forms of the disease, the methods of termination, and sketch the outline of

treatment to be adopted.

3. What is the etiology of pernicious anæmia? Describe the symptoms, the characters of the blood, the diagnosis, prognosis, duration of the disease, and treatment.

4. Describe the anatomical changes in a case of enteric fever, the

symptoms, and treatment.

#### August 1894.

1. Give the causes, morbid anatomy, symptoms, and physical signs of acute pericarditis.

2. Mention the chief forms of renal calculus, the symptoms to which

they give rise, the diagnosis, and the treatment in each case.

3. Describe the leading features of chorea. Mention any complications and dangers which may arise in the course of an attack, and give the treatment.

### March 1895.

1. Retheln-What is the duration of its incubation and infectiveness? Detail its symptoms, and how it is distinguished from measles and scarlatina?

2. Multiple Neuritis-Describe its leading symptoms and its pathology, and how it differs from poliomyelitis anterior acuta and locomotor

ataxia.

3. Pernicious Anæmia-Mention its symptoms, the appearance of the blood, the diseases for which it may be mistaken, and how they differ from it.

4. Acute Rheumatism-Enumerate the principal theories as to its pathology; the complications, the prognosis, and the treatment, general and local.

#### November 1895.

1. Diphtheria-Describe its morbid anatomy, symptoms, and treatment. 2. Atrophic Cirrhosis of the Liver-Describe its causation, symptoms,

and general treatment.

3. Hæmaturia-Mention its various causes, and state shortly how each may be distinguished from the others.

## January 1896.

 Describe the anatomical characters and symptoms of the inflammatory, cirrhotic, and waxy forms of Bright's disease.

2. Give the etiology and symptoms of chicken-pox, describing fully the appearance of the rash, and its diagnosis from modified small-pox.

3. What is the etiology of renal calculus? What varieties are met with? Mention the symptoms and treatment of renal colic.

## April 1896.

1. What is ascites? Describe its causes, signs and symptoms, prognosis, and treatment.

2. Describe the varieties of aphasia, and their pathology.

3. At what stage in a case of diphtheria is the disease likely to invade the larynx? Describe the symptoms of laryngeal diphtheria. Mention the most common complications and sequelæ of diphtheria, and the modes in which it terminates in death. Describe the antitoxine treatment.

## Materia Medica.

## May 1894.

1. Give the source, the preparations, and the action and uses of jalap.

2. Mention the diuretic salts of potassium, with their doses and modes of administration.

3. What are succi? Mention the succi of the British Pharmacopæia. 4. Prescribe (in unabbreviated Latin, with the directions to patient in English) an expectorant mixture containing ammonium carbonate, squills,

and digitalis.

### August 1894.

1. What is ergot? Give its therapeutical applications, its preparations, and doses.

2. How is hydrate of chloral prepared? What are its pharmacological actions and medicinal uses?

3. Mention four anthelmintics. Give their preparations, special uses, and doses.

### March 1895.

1. Mention four drugs by means of which you would reduce a feverish temperature; state their doses, and the way in which you would administer them.

2. What is meant by the term hydragogue cathartic? Mention three, and state their dose or the dose of any of their preparations.

 What are the therapeutical uses of sulphate of zinc?
 Mention the chief therapeutical applications of iodide of potassium. Explain these actions so far as you are able.

### November 1895.

1. What parts of the plants digitalis purpuorea and strophanthus hispidus, are used in medicine? State their preparations, and the doses of these, and give a short account of their action on the circulation.

2. Describe the appearance and physical properties of chloral hydrate.

What is its dose? State briefly its therapeutical uses.

3. From what is strychnine obtained? Describe its pharmacological action.

### January 1896.

1. Name four official preparations containing opium. State the proportion of opium present in each. Describe the treatment of a case of poisoning by an overdose of opium.

2. How is nitrate of silver prepared? What forms of it are met with in practice? How would you prescribe it for—(a) Internal use, (b) Ex-

ternal application?

3. Name, and give, in each case, the dose of-(a) Three diaphoretics, (b) Three Emetics, (c) Three Purgatives, (d) Three Hypnotics.

## April 1896.

 Give an account of the characters of sulphonal as regards appearance, solubility, taste, &c. State its dose and the usual methods of administration. What are its therapeutic uses?

2. What are the therapeutical uses of ipecacuanha? Mention three

of its official preparations, and state their doses.

3. Name the official preparations of creta præparata, and give their doses. State shortly their therapeutical uses.

# Midwifery.

# May 1894.

1. How would you diagnose and treat a case of labour, when the head was arrested at the brim from hydrocephalus?

Define accidental hæmorrhage, and give the diagnosis, prognosis,

and treatment of a case occurring near full term.

What is cephalhæmatoma? Describe its course and treatment.

### August 1894.

 Intra-uterine Hydrocephalus—(1) How is it diagnosed?—(a) in head-first labours; (b) in breech labours? (2) What are the special dangers? (3) What is the treatment?

2. Which is the most common position in face cases? What is the

mechanism?

3. What is meant by (1) inevitable, (2) threatened, and (3) incomplete abortion? Describe the symptoms and treatment of an incomplete abortion.

### March 1895.

1. What is meant by the terms (1) threatened, (2) inevitable, and (3) incomplete abortion? How is each condition managed?

2. Describe the mouldings which present themselves on the fætal head

during an ordinary head-first labour.

3. Intra-uterine Hydrocephalus—Discuss—(1) its diagnosis during labour; (2) the risk connected with it; (3) the management (a) of a head-first case, and (b) of a head-last case.

4. Phlegmasia alba dolens—Describe (1) its nature, (2) its symptoms, and (3) the treatment.

November 1895.

1. Myxoma of Chorion—(a) What is the nature of it? (b) To what symptoms does it give rise? (c) Describe the treatment.

2. How may a fibroid tumour of the uterus interfere with labour,

and how is the condition dealt with?

3. Which is the most common occipito-posterior position of the vertex? Describe the mechanism of labour in such a case.

## January 1896.

1. Myxoma of Chorion: Describe—(a) Nature, (b) Signs, (c) Treatment.

2. Compare Juxto-Minor and Flat Pelvis as to-(a) Conformation,

(b) Mechanism, (c) Management.

3. Version—(a) Name the varieties. (b) State four typical cases in which this operation is indicated.

### April 1896.

1. Give an account of the signs and symptoms you would expect to find in a case of gravid retroversion at about the tenth week, and explain how you would treat such a case.

2. In what ways may a right occipito-posterior vertex case termi-

nate? Describe the mechanism in each case.

3. What do you understand by "accidental hæmorrhage"? What are the causes of this condition? How would you treat it?

# Medical Jurisprudence.

## May 1894.

1. A man is found unconscious and without clue to his identity or to the history of the case. Describe at least four conditions which might account for his unconsciousness, and state the chief points in the differential diagnosis of each.

2. What are the distinctive evidences in infanticide by omission, and infanticide by commission? If the death of a new-born child were

accidental, what would be the indications that it was so?

3. Give the indications, symptoms, and *post-mortem* appearances and diagnosis of a chronic case of poisoning with tartar emetic. State the treatment, and also the chemical tests for antimony.

### August 1894.

1. How is putrefaction in a dead body influenced by temperature and moisture? Describe the change known as adipocere.

What points in the examination of a wound on a body, found dead, would determine the opinion that it was inflicted before death; and also

whether it was accidental, suicidal, or homicidal?

3. Describe the ways in which families and individuals may be poisoned by the preparations of lead; the symptoms resulting; and the preventive remedial steps which ought to be taken.

### March 1895.

1 A man is found unconscious, and with the pupils contracted. Specify the causes which might produce these conditions, and how you would diagnose whether they were due to disease or poisoning.

2. What appearance would guide you in reporting that the marks of burning on the body of a person found dead were caused during life?

What are the causes of death after a severe burn?

3. What post-mortem circumstances modify (1) the cooling of the body, (2) the rigor mortis, (3) the hypostatic congestion, and (4) putrefaction?

4. Describe the symptoms, treatment, and post-mortem appearances in a case of acute poisoning by arsenic. Mention the tests for the detection of arsenic in solution.

### November 1895.

1. A man is found lying at the foot of a stair in an insensible state. Mention four causes which might produce coma and the differential diagnosis of each.

2. State the incubation period of mumps, smallpox, measles, and typhoid. When, and after what precautions, would you consider a house, in which these diseases had been treated, free of infection?

3. Several members of a family are attacked with symptoms of irritant poisoning during the night, after having eaten fried fish and hot meat pie. One of the cases proves fatal in three days. What may the poisonous effects be due to? Mention two possible irritants.

# January 1896.

1. Describe the external and internal phenomena characteristic of putrefaction in the human body, after death, in the order of their occurrence. What indications do these changes afford of the time that has elapsed since death? Explain the modification of the putrefactive process known as adipocere.

2. What are the effects of intense cold on the human body in life? How are they influenced by sex, by age, and by the strength and habits of the individual? What post-mortem appearances have been found?

3. What symptoms of poisoning follow the swallowing of half an ounce of crystalline oxalic acid? When would they begin? What should be the treatment? If the case ends fatally, when does death occur? What marked post-mortem appearances are usually found?

# April 1896.

1. State the difference between cadaveric spasm and vital spasm. How can you distinguish primary and secondary flaccidity of the muscles in a cadaver? When do they occur.

2. A dead body is found with marks of burning on it. What appearances would enable you to certify-whether the burning was done during

life, or after death had occurred?

3. What conditions and symptoms in a patient would lead you to suspect slow poisoning by arsenic? How would you proceed to verify your diagnosis? How would you treat the case?

# EXAMINATION FOR MEMBERSHIP.

# Practice of Medicine.

Three Questions only to be answered.

## April 1895.

1. Describe the symptoms and treatment of psilosis or sprue.

2. Describe the signs, symptoms, and treatment of aneurism implicating the upper part of the descending thoracic aorta.

3. Describe the appearance, symptoms, and treatment of rupia.

4. Describe the symptoms and signs associated with leucocythæmia, and its prophylactic and curative treatment.

### July 1895.

1. What important points may observation of the temperature bring out in the following diseases—(1) typhoid fever; (2) rheumatic fever; (3) pneumonia?

2. Mention the causes, and describe and explain the symptoms of a

case of spastic paraplegia.

3. Mention the chief symptoms (in reference to the various systems of the body) upon which a diagnosis of uræmic poisoning might be founded; and state briefly the treatment of this condition.

4. What symptoms would indicate the perforation of a gastric ulcer;

and what treatment would you adopt in such a case?

### October 1895.

1. Appendicitis.—Describe its etiology, symptoms, signs, and treatment.

2. Tetanus.—Describe its etiology, symptoms, and treatment.

- 3. Raynaud's Disease.—Describe fully its etiology, symptoms, and treatment.
- 4. Paralysis of the Musculo-Spiral Nerve.—Describe its causation and symptoms.

### January 1896.

1. State etiology, symptoms, and treatment of appendicitis.

2. Describe symptoms of a case of true angina pectoris, and explain your views as to how the symptoms arise. Indicate treatment, immediate and prospective.

3. Mention some points in the differential diagnosis between symptomatic and pernicious anæmia, and between the latter and Hodgkin's

Disease. Indicate the treatment in each severally.

### April 1896.

1. Indicate the morbid conditions of the pancreas with which you are acquainted, and describe generally the symptoms by which they may be recognised.

2. Describe the symptomatolgy, pathology, and treatment of paroxys-

mal hæmatinuria.

3. Describe the symptomatology and treatment of acute gout Enumerate the morbid conditions and complications which are apt to supervene as the result of repeated attacks of the acute disease.

4. What do you understand by aphasia? Describe fully its varieties.

## July 1896.

1. Define diphtheria, give the conditions which favour its occurrence, state the active cause, mention the sequelæ which may follow an attack, and sketch a line of treatment.

2. What are the symptoms of angina pectoris? How do you account

for them? Formulate the treatment.

3. What is the lesion in infantile paralysis? How does the disease declare itself, and what deformities does it produce?

4. What is erythema nodosum? In whom and at what age is it most frequent? To what general disorder does it seem related?

# Therapeutics.

Three Questions only to be answered.

## April 1895.

1. Describe and explain the treatment of hæmoptysis occurring in a case of mitral stenosis, in which cardiac compensation is not greatly impaired.

2. Give directions suitable for the guidance of a patient who has just

recovered from a severe first attack of articular gout.

Describe the treatment of simple atonic dilatation of the stomach.
 State the various ways in which purgatives act, and give an

illustrative example of each.

## July 1895.

1. Name the more recent remedies, and the methods of their employment, in the treatment of (1) lockjaw and tetany, (2) rabies, (3) snake-bite, and (4) diphtheria. Explain the rationale of the treatment.

Explain how you would treat morphine or opium poisoning; and, in this connection, name the most recent antidote, stating the dose, and

the rationale of its action.

- 3. Name severally the remedies you would employ in the treatment of the following cardiac lesions, (1) before rupture of the compensations, and (2) after rupture of the compensations—viz., aortic stenosis, aortic regurgitation, mitral regurgitation, mitral stenosis. Explain your reasons, basing your statements on the special actions of the remedies used.
- 4. Name the remedies you would use in putrid conditions of the lungs associated with bronchitis, bronchiectasis, chronic pneumonia, and phthisis.

### October 1895.

1. Describe concisely the antitoxin treatment of diphtheria.

2. What treatment would you employ for the relief of insomnia and delirium in the following diseases?—Typhoid fever, delirium tremens, advanced heart disease.

3. Mention some facts which prove the value of sunlight as a therapeutic agent.

4. Give the treatment of a case of exophthalmic goitre.

(N.B.—The Candidate is expected to embody in each answer prescriptions written as he would send them to the druggist.)

## January 1896.

1. Detail the method of obtaining the contents of a dilated stomach, with hyperacidity; and the procedure for ascertaining the quality and quantity of acid present, free and fixed.

2. Give the general treatment applicable to a case of exophthalmic goitre: and the special treatment directed to the heart and circulation,

to the thyroid enlargement, and to the exophthalmos.

3. In what diseases is hyperpyrexia met with as a complication? what is the theory of its causation? why is it so peculiarly dangerous? and what treatment should be adopted to arrest it?

## April 1896.

1. Describe how you would treat an acute attack of gout, and what prophylactic measures you would employ subsequently.

Describe the preparation of the antitoxin of diphtheria, and how

you would employ it therapeutically.

- 3. Describe the treatment of diabetes mellitus, medicinal and dietetic, and state what results are supposed by some to follow the too exclusive adoption of a nitrogenous diet.
- 4. Describe the essential action of digitalis, and differentiate it from the action of strophanthus.

July 1896.

1. What treatment should be adopted to avoid the occurrence of complications in a severe case of scarlatina? And how are adenitis,

nephritis, and otitis to be dealt with?

- 2. Describe the method of procedure for obtaining a specimen of the gastric contents; and how the quality of the contained acids, the quantity of hydrochloric acid, and the digestive power of the fluid are to be ascer-
- 3. How are acute and chronic dysentery to be respectively treated? 4. How should asthma be treated during the paroxysm, and in the intervals between the paroxysms?

# Pathology and Morbid Anatomy.

### October 1891.

1. Discuss fully the pathology of dropsy.

2. Give an account of the present state of our knowledge of the path-

ology of tetanus and leprosy respectively.

3. Describe the naked-eye and microscopical characters of the various forms of hepatic cirrhosis, and indicate any disturbances of the circulation on the biliary function which may accompany them.

4. Describe the local change in the brain which would follow upon a small hæmorrhage into its substance, and contrast these with the changes which would be produced in a corresponding area from thrombosis.

### January 1894.

1. Give an account of the micro-organism of Asiatic cholera, with especial reference to the mode of isolation and detection for diagnostic

purposes, and its morphology and life history.

2. Describe fully the changes observed in the liver in acute yellow atrophy; and, more briefly, those most frequently found in any other organ in that disease.

3. Describe the changes in central nervous system which may be produced by a tumour involving only one lateral half of spinal cord in the mid-dorsal region.

4. Describe the bilharzia hæmatobium, and briefly state the facts

known as to its relations to disease.

# Midwifery.

## Three Questions only to be answered.

### January 1895.

 Ectopic Gestation—(1) What varieties may be met with? (2) Give the symptoms and diagnosis of a tubal gestation at the second (3) Give the prognosis of such a case. (4) How would you deal with a sub-peritoneo-abdominal gestation at the full term?

2. Accidental Hæmorrhage—(1) Explain the term and describe the (2) Give the diagnosis. (3) State the dangers, immediate and

(4) Shew how these are to be averted. remote.

- 3. Abortion—(1) Describe the causes, ovular and maternal. (2) State fully the effects of occupation of women as a cause, and the constitutional conditions of the parents. (3) State the treatment, preventive and otherwise.
- 4. Rupture of the Uterus—(1) Describe the circumstances in which this may occur during labour. (2) What should be done to obviate it? (3) State the appropriate treatment to be adopted when it occurs.

## April 1895.

1. Discuss the pathology and treatment of a case of eclampsia coming on near the end of pregnancy.

2. Placenta Prævia-Define this condition. Explain the mechanism of the separation of the prævial portion, and discuss briefly the treatment.

3. Give the diagnosis, prognosis, and treatment in a case of hydrocephalus arrested at the brim of the pelvis.

4. Missed Abortion-What is meant by this term? Give its dangers

### October 1895.

1. Describe the possible effects that small-pox may have upon pregnancy, the fœtus, and the puerperium.

State in detail the management of a face case.

3. Give the signs, symptoms, causes, and treatment of phlegmasia

alba dolens in the puerperium.

and treatment.

4. Describe the naked-eye and microscopical structure of the umbilical cord in early and in advanced pregnancy; and enumerate the pathological conditions of the cord which may be met with.

#### April 1896.

 Give the signs and treatment in a case of arrest of the head at the • brim, due to hydrocephalus.

2. How would you diagnose and treat a case of abortion at the fourth

month, due to hydatid mole?

3. Give the symptoms and signs of ruptured tubal gestation at the second month.

4. Give the symptoms, signs, and treatment of a case of fungous endometritis.

## July 1896.

1. Explain the modes of development of twins. Indicate the disturbances of pregnancy in twin cases. Give the diagnosis, dangers, and management of twin labours.

2. What varieties of ovarian tumour may be found delaying labour? How may they interfere with the labour? How are they to be diagnosed? What are the possible terminations of such a labour?

Indicate the proper lines of treatment.

3. The Lower Uterine Segment—(a) Describe its relations, limits, and structure. (b) Compare its function during labour with that of the body of the uterus. (c) What complications of labour are especially associated with it, and indicate why?

4. What are the symptoms of puerperal pulmonary thrombosis? Describe the causes and treatment. How is it distinguished from puerperal pulmonary embolism?

# Psychological Medicine.

# July 1894.

1. Describe myxœdema, giving special attention to its mental symptoms, and its relation to cretinism.

2. Describe the insanity of adolescence, and climacteric insanity, with

special reference to the distinguishing characteristics of each.

3. Describe the chief features, mental and bodily, of a case of acute delirious mania. Describe the probable condition of the brain cortex. Lay down the general principles of treatment. Mention the chief dangers.

4. Describe the pathological appearances, naked-eye and microscopic, in general paralysis. Mention the pathological differences between a typical case of that disease and a typical case of chronic alcoholism.

# April 1895.

1. Differentiate between the clinical aspects and morbid anatomy of (1) cerebral syphilis with insanity, (2) general paralysis of insane, and (3) alcoholic insanity.

2. State the more important facts connected with the anatomy of the cells of the Rolandic area elucidated by the researches of Golgi and Ramon-y-Cajal.

3. Discuss the medico-legal relations of epilepsy, bearing especially on

suspensions of consciousness without muscular convulsion.

4. Discuss the morbid mental symptoms occurring in puerperal women in their relations to sepsis.

### July 1896.

- Describe the associating tracts of the cortex cerebri.
- 2. State Weber's law.

3. State your views on the pathology of acute puerperal mania, and your reasons for your belief.

4. Describe a case of acute primary dementia, its course, and its possible terminations.

# Medical Anatomy.

## January 1894.

Enumerate the various layers of the retina, from within outwards;
 and describe its relations to the optic nerve, and to the choroid coat.

- 2. State what are the situations, in relation to the interior chest wall, of (1) the aortic valve, and (2) the first part of the arch of the aorta. Describe the anatomical constitution of a cusp of the aortic valve; and give the relations of the first part of the aortic arch to surrounding structures.
- 3. Describe the duodenum, and give its anatomical positions and relations.
- 4. Describe the caput cæcum coli and vermiform appendix, and give their anatomical positions and relations.

# Public Health.

Three Questions only to be answered.

# April 1895.

 Contagious Ophthalmia—Contagious ophthalmia has broken out in the children's department of a workhouse. To what is this generally due? What steps would you take to prevent it from spreading?

2. Diphtheria—A prevalence of diphtheria discovered in a village in a district unprovided with hospital accommodation. What considerations would chiefly influence you in your advice to persons in the village respecting the avoidance of contagion?

3. Disposal of Sewage—What are the conditions requisite for the satisfactory use of land as a means of disposing of water-carried sewage?

4. Typhoid Fever—Typhoid is rife in a city of 160,000 inhabitants. What steps would you take to ascertain the source of the disease; and what steps would you advise the Municipality to take in order to arrest its spread?

### January 1896.

1. Ventilation—Distinguish between natural and artificial means of ventilation. What points require to be attended to in order to make the natural means efficacious for having ventilation in the houses of the poorer classes?

2. Disinfection—State what procedure should be adopted for disinfecting the following articles of clothing respectively:—(a) Cotton

shirts, (b) woollen clothes, (c) blankets, (d) mattresses.

3. What are the points which should be examined before reporting on the suitability of a proposed water supply? How is the examination made as to the following points:—(a) Hardness; (b) dissolved gases?

4. Describe methods for determining the proportions of (a) carbonic acid, and (b) water vapour in air.

### April 1896.

1. Potable Water—Describe, in detail, the method of making the bacteriological examination of a water intended for the use of a community.

2. House-drains—(a) What fall should a house-drain have? (b) What arrangements may be made to prevent the entrance of sewer gases into the house?—(Sketches may be used in illustration.)

3. Disposal of Sewage—(a) Describe one method of disposing of water-carried sewage by chemical means. (b) Give your opinion as to

the propriety of discharging the effluent into a river.

4. Milk Supply—What are the points to be inquired into in examining a cow-house and dairy, in reference to their influence on human health?

## Diseases of Children.

Three Questions only to be answered.

## July 1895.

1. Give accurately physical signs, course, and treatment of a case of empyema in a child, say of four years; noting specially any points in which it differs from the same disease in adults.

2. Describe fully a case of sarcoma of the kidney in a child. What

other organs does this disease most frequently attack in childhood?

What are the peculiarities of acute rheumatism in childhood?
 Describe the disease, giving its complications, accompaniments, sequelæ,

and prognosis.

4. In drawing up a code of rules for a school, what periods of quarantine would you recommend in the following diseases:—Measles, whooping-cough, scarlatina, small-pox, diphtheria, mumps—(1) in the case of a child who has been ill, and (2) in the case of one who has been exposed to infection?

### October 1895.

1. Describe the affections of the osseous system met with in congenital syphilis, and state how you would differentiate them from those of a rachitic origin.

2. Give the causes, symptoms, and treatment of the condition known

as "hydrocephaloid."

- 3. Describe the clinical characteristics of a case of sclerema, and mention the points of difference between that disease and ædema neonatorum.
  - 4. Give a brief description of the different varieties of stomatitis.

### July 1896.

1. Describe the clinical features of infantile scurvy as regards signs and symptoms. State particularly the differential diagnosis, and give an account of its etiology and pathology. How would you treat such a case?

2 Contrast in detail the manifestations of acute rheumatism in the child as compared with the adult. Give an account of the disease as ordinarily met with in the child. Mention three of the more serious complications which may endanger life. Indicate the symptoms which would warn you of the approach of such complications in each case, and ultimately attend their full development.

3. Mention the recognised causes of constipation in children. Discuss

its treatment in (a) infants and (b) older children.

4. What forms of paralysis may result from injury occurring during labour? Mention the symptoms and probable lesion in each case. For

what other conditions may these cases be mistaken, and how can they be differentiated? What is the prognosis and the treatment?

# Diseases of the Nervous System.

July 1895.

What are the symptoms of hæmorrhage in the pons varolii?

2. On what symptoms and clinical course would you mainly rely for

diagnosis of tumour of the spinal cord or its membranes?

3. What are the symptoms of peripheral neuritis, due to alcohol, and what pathological changes are produced? What prognosis would you give, and what treatment would you adopt in a severe case?

4. How would you distinguish a progressive muscular atrophy, due to

disease of the spinal cord, from one of idiopathic origin?

