

# REGULATIONS

TO BE OBSERVED

BY

CANDIDATES FOR THE QUALIFICATIONS IN  
MEDICINE, SURGERY, AND MIDWIFERY

CONFERRED CONJOINTLY

BY

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

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## N O T E.

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In conformity with Section XIX of the Medical Act, 1858,  
THE ROYAL COLLEGE OF PHYSICIANS OF EDINBURGH,  
THE ROYAL COLLEGE OF SURGEONS OF EDINBURGH, and  
THE ROYAL FACULTY OF PHYSICIANS AND SURGEONS OF  
GLASGOW,  
jointly conduct examinations for the Diplomas of the Three  
Co-operating Bodies.

This arrangement by which the three Scottish Corporations  
confer a Joint Qualification in Medicine, Surgery, and Mid-  
wifery, received the special sanction of the General Council  
of Medical Education and Registration on 31st March 1884,  
and came into operation on 1st October 1884.

The Triple Qualification :

*Licentiate of the Royal College of Physicians of Edinburgh*  
(*L.R.C.P. Edin.*),

*Licentiate of the Royal College of Surgeons of Edinburgh*  
(*L.R.C.S. Edin.*), and

*Licentiate of the Royal Faculty of Physicians and Surgeons of*  
*Glasgow (L.R.F.P. & S. Glas.)*,

qualifies the holder for admission to the Medical Register in  
terms of Section III. of the Medical Act, 1886.

Women are admitted to the Examinations on the same con-  
ditions as men.

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Each of the Corporations grants its Single Diploma after  
examination. A copy of the Regulations for the Single



# REGULATIONS.

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## 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.\*

(1) The Educational Examination Certificate shall bear evidence that the candidate has passed in the following subjects, viz. :—

1. English.
2. Mathematics, Elementary.
3. A language other than English.
4. An additional subject or subjects, as required by the regulations of the particular examination, to be chosen from the subjoined list, viz. :—History, Geography, Physical Science, Dynamics, Natural Science, Latin,† Greek, Hebrew, French, German, or other language accepted by the University or Licensing Body for the purpose.

(2) The standard of the examination shall not be lower than that accepted by the General Medical Council or the Scottish Universities Entrance Board.

*And in addition thereto evidence must be produced of having passed*

(3) An Examination in Elementary Physics and Elementary Inorganic Chemistry conducted or recognised by one of the Licensing Bodies.

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\* The Regulations of the General Medical Council provide that no person will be registered as a Medical Student who has not attained the age of seventeen years.

† In the case of natives of India or other Oriental countries, whose vernacular is other than English, an examination in a classical Oriental language (*e.g.*, Sanscrit, Arabic, Chinese), may be accepted as equivalent to an examination in Latin or Greek.

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(1) The Educational Examination Certificate shall bear evidence that the candidate has passed in the following subjects, viz. :—

1. English.
2. Mathematics, Elementary.
3. A language other than English.
4. An additional subject or subjects, as required by the regulations of the particular examination, to be chosen from the subjoined list, viz. :—History, Geography, Physical Science, Dynamics, Natural Science, Latin,† Greek, Hebrew, French, German, or other language accepted by the University or Licensing Body for the purpose.

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† In the case of natives of India or other Oriental countries, whose vernacular is other than English, an examination in a classical Oriental language (*e.g.*, Sanscrit, Arabic, Chinese), may be accepted as equivalent to an examination in Latin or Greek.



2. Every person desirous of being registered as a Medical Student should apply to the Dean of the Medical School which he is attending, within fifteen days after the commencement of study, and should produce evidence that he has attained the age of seventeen years, that he has passed a Preliminary Examination in General Education recognised by the General Medical Council, and in addition an Examination in Elementary Physics and Elementary Inorganic Chemistry conducted or recognised by one of the Licensing Bodies.

SYLLABUS OF THE PRE-REGISTRATION EXAMINATION IN  
PHYSICS AND INORGANIC CHEMISTRY.

I. PHYSICS—

(a) *General Physics*.—Systems of units : Measuring instruments : Specific gravity : Work and Energy : Elementary study of the properties of solids and fluids.

(b) *Electricity and Magnetism*.—Elements of magnetism and electrostatics : Electric currents : Cells : Potential difference, current, and resistance : Effects produced by a current : Galvanometers : Ohm's Law and its applications : Elementary electro-magnetism.

(c) *Either*

*Heat*.—Thermometry : Calorimetry and specific heat : Expansion of solids, liquids, and gases : Change of state and latent heat : Methods of heat transference.

*or*

*Light*.—Velocity : Photometry : Reflection and refraction : Mirrors, Lenses, Prisms : Simple optical instruments.

II. CHEMISTRY—

(a) The Principles of Elementary Chemical Theory, including the following :—

The nature of Elements and Compounds ; acids, bases and salts.

The Laws of Chemical Combination ; an elementary conception of valency ; symbols, formulæ and equations.

Equivalent, atomic and molecular weights.

The Gas Laws—Boyle, Charles, Gay-Lussac.

Avogadro's Hypothesis ; elementary properties of solutions—ionisation, electrolysis ; Oxidation and reduction.

Simple arithmetical calculations on the foregoing.

(b) The preparation, physical and chemical properties of :  
Hydrogen, Water, Hydrogen peroxide.

Oxygen and Ozone. Composition of air.

Nitrogen and its oxides ; Nitric and Nitrous acids and their salts.

Ammonia and Ammonium salts.

Carbon and its oxides ; the Carbonates.

Sulphur and its oxides ; Sulphuric and Sulphurous acids and their salts.

Hydrogen Sulphide.

Chlorine, Hydrochloric acid and the Chlorides, Hypochlorites and Chlorates.

(c) Metallic ores and general principles of the extraction of the metals.

The following metals and their more important compounds—emphasis being laid on reactions of importance in analytical processes :—

Sodium, Calcium, Zinc, Iron, Copper, Lead.

Details of metallurgical and other manufacturing processes are not required.

(d) *Practical Chemistry*—

(1) Identification of simple compounds of the above metals, viz.—Oxides, Chlorides, Bromides, Iodides, Sulphates, Nitrates, Carbonates.

(2) Use of the balance, burette and pipette.

The principles of quantitative analysis as illustrated by volumetric methods.

Determination of equivalent and molecular weights of acids and bases, and other simple



applications of acidimetry and alkalimetry, including the indirect estimation of Ammonium salts.

(3) Writing a short report on practical work done.

The Examination shall be Written, Practical and Oral.

Candidates may present themselves for the Pre-Registration Examination immediately after passing the Preliminary Examination in General Education.

Candidates must present themselves for examination in Physics and Chemistry together (unless they obtain exemption from one of them).

The fee for admission to the Pre-Registration Examination is £1, 1s., and for re-examination in each of the subjects 10s. 6d.

**Under no circumstances will late entries be accepted.**

Candidates intending to present themselves for examination in Edinburgh or Glasgow are required to give notice in writing to the respective Registrars thereat, **twenty-one** clear days before the day on which the examination commences, transmitting at the same time the necessary fee and evidence of having passed the examination in General Education.

Exemption from the subjects of this examination may be granted to students who have passed in the Higher Grade of Science (including Chemistry) at the Leaving Certificate Examination of the Scottish Education Department, or such other similar examination as the Licensing Bodies shall from time to time recognise, provided that the subjects of Chemistry and Physics have not been already utilised for exemption from the Preliminary Examination in General Education.



## CHAPTER II.

## PROFESSIONAL EDUCATION.

1. The course of professional study after registration as a medical student shall be a period of certified study during not less than five academic years, in the last three years of which clinical subjects shall be studied.

2. The following is a statement of the course of professional study :—

(A term shall extend over at least  $2\frac{1}{2}$  months.)

ELEMENTARY BIOLOGY, including Practical Biology	2 terms.
OR	
ZOOLOGY AND BOTANY, including Practical	each 1 term.
CHEMISTRY (INORGANIC AND ORGANIC) in its application to medicine, including practical work.	2 terms.
PHYSICS, including Practical	2 terms.
ANATOMY (including embryology) lectures (2 terms), Practical Anatomy (Dissections must comprise the whole human body) (5 terms).	7 terms.
PHYSIOLOGY lectures (2 terms), Practical Physiology, including Histology (if not included in Anatomy), Bio-Chemistry, and Bio-Physics (3 terms).	5 terms.
MATERIA MEDICA AND PHARMACOLOGY (Theoretical and Practical), including Pharmacological Chemistry, with instruction in Prescribing, and the Principles of Therapeutics.	2 terms.
PATHOLOGY, including Practical Morbid Anatomy, Applied Pathology, and Bacteriology.	3 terms.
Attendance at not less than 7 post-mortems.	
PRINCIPLES AND PRACTICE OF MEDICINE.	2 terms
PRINCIPLES AND PRACTICE OF SURGERY.	2 terms
OPERATIVE SURGERY.	1 term.
FORENSIC MEDICINE.	1 term.

A Student who has previous to Registration satisfactorily attended a course or courses of study in one or all of the following subjects, viz. :—Physics, Chemistry, or Biology, in any recognised University, School of Medicine, or other recognised Teaching Institution may without further attendance be admitted to Examination in the subject or subjects thus attended ; provided always that the period of professional study after Registration shall not be less than fifty-seven months.

PUBLIC HEALTH. . . . .	1 term.
Attendance at a Recognised General Hospital for a period of 27 months.	
In addition to the above attendance during academic terms the student will be required to show evidence of six weeks' hospital attendance during the summer vacations of the fourth and fifth years.	
CLINICAL MEDICINE, including instruction in Applied Anatomy and Physiology, Clinical Pathology and Therapeutics. . . . .	3 terms.
CLINICAL SURGERY, including Applied Anatomy and Physiology, Clinical Pathology and practical instruction in Surgical Methods, including Mechano-Therapeutics. . . . .	3 terms.
CLINICAL INSTRUCTION in the following subjects :—	each 1 term.
(a) Diseases of Children (Surgical and Medical).	
(b) Fevers.	
(c) Tuberculosis.	
(d) Psychological Medicine.	
(e) Skin Diseases.	
(f) Diseases and injuries of the eye ; Errors of Refraction.	
(g) Diseases of the ear, throat, and nose.	
(h) Radiology.	
(i) Venereal Diseases.	
(j) Orthopædics, if this is not included in the course of Surgery or of Surgical methods.	
MEDICAL CLINICAL CLERKSHIP, concurrent with Clinical Medicine. . . . .	3 terms.
SURGICAL CLERKSHIP OR DRESSERSHIP, concurrent with Clinical Surgery. . . . .	3 terms.
ATTENDANCE at the General Out-Patient or Casualty Department of a General Hospital. . . . .	1 term.
DISPENSARY PRACTICE (where available), with attendance on patients at their own homes. . . . .	1 term.
INSTRUCTION IN VACCINATION by a Public Vaccinator authorised to grant certificates of proficiency in Vaccination.	
INSTRUCTION IN THE ADMINISTRATION OF ANÆSTHETICS, the Certificate of the Instructor to attest that the Candidate has received adequate instruction in personally administering anæsthetics.	
MIDWIFERY AND DISEASES OF WOMEN, Systematic instruction in the Principles and Practice of Obstetrics and Gynæcology. . . . .	2 terms.



CLINICAL GYNÆCOLOGY.* . . . . .	1 term.
CLINICAL OBSTETRICS. . . . .	1 term.

## PRACTICAL MIDWIFERY :—

Every student before commencing the study of Practical Midwifery shall have attended a course of lectures on Surgery and Midwifery, and be required to have held the offices of Clinical Medical Clerk and Surgical Dresser.

Every student shall, after attending the Courses of systematic instruction in the principles and practice of Surgery and of Obstetrics, give continuous attendance on Obstetrical Hospital Practice, under the supervision of a competent officer, for a period of one term, during one month of which, at least, he shall perform the duties of an intern student in a Lying-in Hospital or Ward. He should attend during the period twelve deliveries, five of which must be done under qualified supervision. Extern or District Maternity work should not be taken until the student has complied with the requirements of the General Medical Council.

A certificate of having attended twelve cases of Labour should state that the student has personally attended each case during the course of Labour, making the necessary abdominal and other examinations, under the supervision of the certifying officer, who should describe his official position and state how many of the twelve cases were conducted in Hospital.

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\* Candidates will be required to produce the following Certificate, viz. :—

“ It is hereby certified that.....has attended as Clinical Clerk in the Obstetric and Gynæcological Wards and Out-patient Department for a period of three months, and has under my supervision carried out his Clinical Studies, including the examination of such a number of pregnant women and Gynæcological patients as in my opinion qualifies him to present himself for the Final Examination in Midwifery and Gynæcology.”

## 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. The Certificates of Professional Study must state that Students have attended the courses and such examinations as are held during the courses to the satisfaction of their Teachers.

3. Examinations are held quarterly in Edinburgh or Glasgow.

4. Candidates may enter for all or any of the subjects of the First and Third Examinations. All the subjects of the Second Examination should be passed at the same time. Candidates for the Final Examination must appear for the subject of Forensic Medicine and Public Health together at any time after passing the Third Examination on lodging the necessary certificates, and may pass them separately. The subjects of Medicine, Surgery, and Midwifery must be entered for together at any time after the completion of five Winter and five Summer Sessions of study, **provided that a period of thirty-three months has elapsed since passing the Second Professional Examination, and may be passed separately.**

5. After the First, Second, or Third Examination, a Candidate may be reported by the Examiners as having passed the Examinations "with distinction," and after the Final Examination a Candidate may be reported as having passed "with honours."

6. Candidates who are unsuccessful at any Examination may be remitted to their studies for a period to be determined by the Examiners. On re-entry Candidates may be required to produce satisfactory evidence that they have in the interval pursued the study of the subjects in which they were remitted.



7. No Candidate shall be admissible to Examination who has been rejected in any subject of the Examination by any Qualifying Board within the three preceding months.

8. Applicants for admission to any of the Examinations are required, on entering, to lodge (*a*) with the Inspector of Certificates a Schedule (forms of which are supplied) showing Certificate of Registration and the Courses they have attended qualifying for admission, and (*b*) to pay the appropriate fee.

9. Candidates must enter for the Examinations and pay the appropriate fee **not less than three weeks** prior to the Examination at which they wish to appear.

**Under no circumstances will late entries be accepted.**

10. A Candidate may be exempted from Examination in the First, Second, or Third Examination, 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 (*a*) the fees exigible for such preceding Examination or Examinations, and (*b*) the fee of the Examination for which he enters, the former fees to be returnable in the event of failure.

12. The following are the addresses of the Inspectors of Certificates:—

*In Edinburgh*—THE REGISTRAR, Surgeons' Hall, Edinburgh.

*In Glasgow*—THE REGISTRAR, Faculty Hall, 242 St Vincent Street.

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

### FIRST EXAMINATION.

13. The FIRST EXAMINATION shall embrace the following subjects—(1) *Physics* ; \* (2) *Chemistry, Systematic and Practical* ; \* (3) *Elementary Biology, Systematic and Practical* ; \* and Candi-

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\* See Synopsis of range of subjects in Appendix I.



dates may take this Examination in these subjects separately, or they may present themselves for the whole at one time, at any period after Registration as Medical Students.

14. The fees for admission to the First Examination shall be as follows :—(1) For the whole Examination, £6. (2) For each of the subjects separately, £3.

### SECOND EXAMINATION.

15. The SECOND EXAMINATION shall be Written, Practical, and Oral, and shall consist of the following subjects :—(1) *Anatomy and Embryology*, and (2) *Physiology, including Histology (if not included in Anatomy), Bio-Chemistry, and Bio-Physics*.

16. The fee for admission to the Second Examination shall be :—For each subject, £3.

### THIRD EXAMINATION.

17. The THIRD EXAMINATION shall be Written, Practical and Oral and shall consist of the following subjects :—(1) *Pathology, including Bacteriology and Morbid Anatomy*, and (2) *Materia Medica and Pharmacology (Theoretical and Practical), including Pharmacological Chemistry, the Principles of Therapeutics, and Prescription Writing*.

18. The fee for admission to the Third Examination shall be :—For each subject, £3.

### FINAL EXAMINATION.

19. The FINAL EXAMINATION shall consist of two parts,\*—(First Part) (a) *Forensic Medicine* and (b) *Public Health* (Second Part) (a) *Medicine, including Therapeutics, Applied Anatomy and Physiology, and Clinical Pathology with Clinical Medicine*; (b) *Surgery, including Applied Anatomy and Physiology, Clinical Pathology, with Clinical Surgery*; and (c) *Obstetrics and Gynæcology, Clinical Obstetrics and Clinical Gynæcology*.

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\* Candidates at the Final Examination may be examined on Diseases of Children, Fevers, Tuberculosis, Insanity, Skin Diseases, Diseases and Injuries of the Eye, Diseases of the Ear, Throat, and Nose, Radiology, Venereal Diseases, Orthopædics, Vaccination, and Anæsthetics.

See Synopsis of range of Public Health in Appendix I.



20. The Schedule for the Final Examination shall contain a summary of the entire Course of Study, properly attested or proved by Certificates, and must be lodged with the Inspector on entering for 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.

21. In addition to the Written and Oral Examinations, all Candidates shall be subjected to Clinical Examinations in Medicine, Surgery, and Midwifery and Gynæcology, which shall include the Examination of Patients, Physical Diagnosis, the Clinical use of the Microscope and of other instruments, Clinical Chemistry, Surgical Appliances, Bandaging, Surface markings, Skiagrams, &c. The Oral Examination shall include the recognition of specimens. **All Candidates for the Final Examination must complete the three portions (Medicine, Surgery, and Midwifery) within a period of nineteen months.**

22. The fee for admission to the First Part of the Final Examination shall be £6. The fee for admission to the Second Part of the Examination shall be £9, and for re-entry, after rejection, in each subject, £3.

## CHAPTER IV.

### ADMISSION OF LICENTIATES.

1. The results of the Final Examination shall be intimated in writing to all the Candidates immediately after the adjudication, and those who have been successful shall be required to call at the office within three days after the results have been dispatched to enter their names in the Registers of Licentiates of the three Co-operating Authorities and to subscribe the Declaration. Within a week after the termination of the Final Examination there will be a formal presentation of the Diplomas at a Ceremony held specially for the purpose.

## CHAPTER V.

## RECOGNITION OF CURRICULA AND EXAMINATIONS OF OTHER BODIES.

1. All Candidates for the Triple Qualification must appear for the Final Examination conducted by the Board in Medicine, Surgery, Midwifery, and Medical Jurisprudence and Public Health. They must also produce Certificates of Registration as Medical Students and Certificates of Efficiency in the Practice of Vaccination from a Government teacher in the United Kingdom.

2. The three Co-operating Bodies—The Royal College of Physicians of Edinburgh, the Royal College of Surgeons of Edinburgh, and the Royal Faculty of Physicians and Surgeons of Glasgow—may from time to time recognise curricula and/or examinations of other Licensing Bodies.

3. Bodies whose curricula and/or examinations in the pre-final subjects may be recognised for admission to the Final Examination for the Triple Qualification.

(1) *The examinations of—*

- (a) The Conjoint Examining Board of England.
- (b) The Conjoint Board of Ireland.
- (c) The Society of Apothecaries of London under the provisions of the Medical Act, 1886.
- (d) The Apothecaries Hall of Ireland under the provisions of the Medical Act, 1886.
- (e) The National Board of Medical Examiners of the United States.

(2) *Recognised Universities in the British Empire.*

- (a) Subject to the provisions of paragraph 1 of this Chapter, curricula and examinations in the pre-final subjects may be accepted in full.
- (b) Graduates in Medicine and Surgery are admissible direct to the Final Examination.

(3) *Medical Colleges in the British Empire.*

Curricula and Examinations of Medical Colleges in



the British Empire whose qualifications are registrable under the Medical Acts.

Ceylon Medical College.

King Edward VII College of Medicine, Singapore.

4. *Graduates* of recognised Universities whose curricula and examinations for degrees and qualifications are not registrable on the Foreign List of the Medical Register may be admitted direct to the Third Professional Examination in Pathology, Pharmacology and Materia Medica.

5. Before being admitted to the Final Examination, they must produce certificates of regular attendance subsequent to passing the Third Professional Examination for a period of twelve calendar months at clinical classes in Medicine, Surgery, and Midwifery, conducted in Hospitals at a recognised medical school in the United Kingdom.

The Committee of Management reserves to itself the right to limit the number of Foreign Graduates admitted to its examinations in any one year.

*Undergraduates* of such Universities may be exempted from the Preliminary Examination in General Education, and from the Pre-registration Examination in Chemistry and Physics on production of evidence of having passed satisfactory examinations in these subjects. Such undergraduates may, in addition, be admitted direct to the First Professional Examination on production of satisfactory evidence of curricula in Chemistry, Physics, and Biology. The curricula and examinations subsequent to passing the First Professional Examination must be taken in the United Kingdom.

*Note.*—The word “recognised” means recognised by the three Co-operating Bodies (Royal College of Physicians of Edinburgh, Royal College of Surgeons of Edinburgh, and the Royal Faculty of Physicians and Surgeons of Glasgow), which recognition need not be affected by the question of recognition of a qualification for admission to the Register by the General Medical Council.



## APPENDIX I.

### Synopsis indicating range of subjects of Examinations.

#### I.—CHEMISTRY (INORGANIC AND ORGANIC)

in its application to Medicine.

##### (a) CHEMISTRY.

Chemical and Physical Change. Elementary and Compound Substances. Laws of Chemical Combination. The Gas Laws. The Atomic Theory. Atoms and Molecules.

Atomic Weights and their determination. Molecular Weights. Avogadro's Hypothesis. Atomic Heat. Chemical Formulæ and Equations. Equivalentents. Valency. Allotropism. Isomerism. Polymerism. Chemical Re-actions. Conditions affecting Chemical Equilibrium. Catalytic Action. Dissociation. Colloidal and other Solutions. Ionisation.

Acids, Bases, Salts.

Oxidation, Reduction.

Dialysis, Electrolysis.

The Non-Metallic Elements including Arsenic, Antimony, Phosphorus, Bromine, and Iodine. General methods of Production and general characteristics of the Metals.

The properties of their more important compounds :—Sodium, Potassium, Calcium, Magnesium, Barium, Aluminium, Mercury, Bismuth, Silver, Copper, Lead, Zinc, Iron, Manganese.

*Organic Chemistry.*—Classification of Organic Compounds—Hydrocarbons, Paraffins and Olefines, Alcohols, Ethers, Aldehydes, Ketones, Acids, Ethereal Salts or Esters, Amines, Amides, Carbohydrates, Glucosides, Alkaloids.

General Principles of Organic Analysis. Empirical, Molecular, and Constitutional Formulæ.

The Preparation and Properties of the following :—Methane, Ethane, Ethylene, Acetylene, Methyl Alcohol, Ethyl Alcohol, Ethylene Glycol, Glycerol, Nitroglycerin, Ethyl Ether, Acetic Aldehyde, Chloral, Formic, Acetic, Oxalic, Lactic, Tartaric and Citric Acids, Ethyl Acetate, Ethyl Nitrate, Ethyl Nitrite, Ethyl Chloride, Chloroform, Iodoform, Ethylamine, Cyanogen, Prussic Acid, Potassium Cyanide, Cyanate and Thiocyanate,



Urea, Benzene, Nitrobenzene, Aniline, Phenol, Benzyl Alcohol, Benzaldehyde, Benzoic Acid, Salicylic Acid.

Composition of Oils and Fats, Saponification, Soaps, Oleic, Palmitic, and Stearic Acids.

Starch, Dextrin, Cellulose, Guncotton, Collodion, Cane Sugar, Grape Sugar, Milk Sugar, Fermentation.

Morphine, Quinine, Strychnine, Caffeine, Stovaine, Cocaine.

(b) PRACTICAL CHEMISTRY.

Testing for Acids, Bases, including salts of all the above-mentioned metals—with the following acids—Hydrochloric, Nitric, Sulphuric, Phosphoric, Carbonic,—Iodides and Bromides.

Volumetric Analysis.—Uses of Acids and Alkalies, Permanganate Solution, and Fehlings Solution.

Testing of the following organic substances :—Sugars, Alcohols, Formalin, Glycerol, Phenol, Acetone, Oxalic, Formic, Acetic, Salicylic, Benzoic, Tartaric Acids, Chloral, Chloroform, Urea, Uric Acid.

II.—PHYSICS in its application to Medicine.

*General Physics.*—Systems of units : Measuring instruments : Specific gravity : Work and energy : Elementary study of the properties of solids and fluids : Kinetic theory of matter : Diffusion : Osmosis : Viscosity : Surface tension.

*Heat.*—Thermometry : Calorimetry and specific heat : Expansion of solids, liquids and gases : Change of state and latent heat : Methods of heat transference : Vapour pressure, Hygrometry : Mechanical equivalent of heat : Convection : Conduction : Radiation.

*Magnetism and Electricity.*—More extended treatment of magnetism and electro-statics : Electric currents : Cells : Potential difference, current and resistance : Effects produced by a current : Galvanometers : Ohm's Law and its applications : Elementary electromagnetism : Measurement of electrical energy : Laws and applications of electromagnetic induction : Thermo-electricity : Cathode and X-Rays : Radio-activity.

*Light.*—Velocity : Photometry : Reflection and Refraction :

Mirrors, Lenses, Prisms : Simple optical instruments : Dispersion : Spectrum analysis : Double refraction and polarisation : Interference : Phosphorescence : Fluorescence : Ultra violet light.

*Sound*.—Nature, production, and propagation : Velocity : Pitch, intensity and quality : Reflection : Resonance : Interference : Beats.

NOTE.—“In the treatment of the subject dynamical principles will necessarily be employed, and explanations given as may be required.”

### III.—GENERAL BIOLOGY.

Candidates may be examined on :—

The Structure and Functions of Protoplasm, including Nucleus ; the General Characters of Cells as Unicellular Organisms, as Sex Elements and as Tissue Elements ; the chief differences between Plants and Animals in Morphology and Function ; and elementary ideas of Organic Evolution and Heredity. An elementary acquaintance with classification as applied to Plants and Animals.

The structure and biology (including their life-history) of Amœba, Euglena, Paramecium.

Hydra—the chief structural features, digestion, methods of reproduction, and the early stages of development.

Earthworm as a segmented cœlomate animal ; comparison with a Coelenterate to show the chief advances in organisation.

Parasitisms as illustrated by Ascaris.

Crayfish—external features, gills, and nervous system only, to illustrate the further advances in organisation in a segmented animal and the correlation of form and function.

A knowledge of the main features of a Fish (*e.g.*, the Skate) ; and of the Frog, including the life history of the latter.

The structure and biology (including the life history) of Protococcus, Yeast, Bacterium, Penicillium. A general knowledge of the main structural features and biology of the Fern and a Dicotyledonous Plant.

The candidate must show a practical knowledge of the examples above named. Dissection and the description of microscopical specimens form part of the examination.



## IV.—MATERIA MEDICA AND PHARMACOLOGY.

Candidates may be examined on :—

## A.

Recognition of the following :—

Aromatic Spirit of Ammonia	Mercury with Chalk
Arsenic Trioxide	Nux Vomica
Camphor	Oleum Theobromatis
Cantharis	Opium
Chloral Hydrate	Paraldehyde
Chloroform	Paraffins
Cod Liver Oil	Phenol
Copper Sulphate	Poppy capsules
Creosote	Potassium Bromide
Ergot	Potassium Iodide
Ether	Potassium Permanganate
Ethyl Chloride	Quinine Sulphate
Ferrous Sulphate	Rectified Oil of Turpentine
Filix Mas	Red Iodide of Mercury
Iodine	Santonin
Iodoform	Scale Preparations of Iron
Jalap	Sod. Salicylate
Lead Acetate	Sulphur
Menthol	Wax

## B.

Constitution, graphic chemical formula where known, physical properties (in so far as these have relation to practical Medicine), pharmacological action, dose, and mode of using :—

The official salts of Potassium, Sodium, Ammonium, Calcium, Magnesium, Silver, Copper, Zinc, Lead, Aluminium, Iron, Mercury, Bismuth, Antimony, Arsenic and its compounds (organic and inorganic).

The official Inorganic Acids.

Acetic, Trichloroacetic, Citric, Tartaric, Lactic, and Picric Acids.

Iodine, Iodides, Iodoform.

Bromides.

- Chlorinated Lime and Soda, Chloramine T.
- Paraffins—liquid, soft, and hard.
- Mustard, Cantharidin, Linseed.
- Phenol, Creosol, Creosote, Guaiacol, Resorein, Boric Acid, Hydrogen Peroxide, Formaldehyde, Hexamine, Chaulmoogra Oil.
- Fixed Oils, *e.g.*, Olive Oil, Oil of Theobroma. Soaps, Glycerin.
- Volatile Oils, *e.g.*, Turpentine, Peppermint, Sandalwood.
- Buchu.
- Camphor, Menthol, Thymol.
- Bitters and Aromatic Bitters, *e.g.*, Quassia, Calumba, Gentian.
- Sulphur, Castor Oil, Croton Oil, Phenolphthalein, Scammony, Jalap, Colocynth, Podophyllum, Anthracene purges.
- Chrysarobin.
- Felix mas, Pelletierine, Santonin, Carbon tetrachloride, Chenopodium.
- Caffeine, Theobromine, Theophylline, Nux vomica, Strychnine.
- Alcohol, Chloroform, Ether, Ethyl Chloride, Ethylene, Nitrous Oxide.
- Chloral Hydrate, Paraldehyde, Sulphonal, Methyl sulphonal, Barbitone, Phenobarbital, Carbromal.
- Opium, Morphine, Codeine, Diamorphine, Apomorphine.
- Cocaine and its allies, Aconite.
- Hydrocyanic Acid, Virginian prune.
- Physostigmine, Pilocarpine.
- Belladonna, Hyoscyamus, Stramonium, and their alkaloids ; Homatropine.
- Amyl nitrite, Sodium nitrite, Trinitrin, Ethyl nitrite, Erythryl tetranitrate.
- Digitalis, Strophanthus, Squill.
- Saponins, Senega, Ipecacuanha, Emetine.
- Ergot, Ergotoxine.
- Phenazone, Phenacetin, Amidopyrine.
- Cinchona, Quinine, Quinidine.
- Salicylates, Benzoates, Benzoin.
- Colchium, Cinchophen.



Cod liver oil, Malt extract.  
 Starches, Sugars, Gums, Waxes.  
 Thyroid, Parathyroid, Adrenaline, Ephedrine, Pituitrin,  
 Pepsin, Pancreatin, Insulin, Liver extract.  
 Vitamins. Antitoxic sera, Vaccines.

## C.

Prescription Writing.

## V.—MEDICAL JURISPRUDENCE.

Legal Procedure in England, Wales, Scotland, and Northern Ireland. Medical practitioners and Courts of Law. Evidence. Certificates. Reports. Identification of living and of dead. Examinations of living and of dead, including post-mortem examinations. Exhumations.

Sudden death. Dying declarations. Wills. Wounds, burns, and personal injuries. Dangers to life. Evidence of accident. Homicide or Suicide; questions of ante-mortem or post-mortem infliction of injuries. Blood stains; tests. Asphyxia, strangling, smothering. Drowning, Cold, Sunstroke, Heatstroke, Thermic Fever, Lightning stroke, and Electric discharges. Malpraxis. Malingering. Professional Secrecy. Medical Ethics.

Pregnancy. Delivery. Birth, still, alive. Abortion. Infanticide. Growth of Infants. Legitimacy. Minority. Tenancy by Courtesy. Superfoetation. Paternity, Affiliation, Supposititious Children. Hermaphroditism, Impotence, Sterility. Sexual offences, Rape.

Legal Aspects of Insanity. Criminal Proceedings. Civil Relations. Nullity of Marriage. Certification. Responsibility. Testamentary Capacity. Evidences of Degeneration. Inebriety. Mental Deficiency. Education Authorities. Life Assurance. Classification of Lives. Duties of Medical Referees.

Toxicology. Sale of Poisons. Duty of Medical man in suspected poisoning. Symptoms. Treatment and post-mortem appearances in the case of the commoner poisons. Chemical Examination. Food poisoning.

## VI.—PUBLIC HEALTH.

1. *Air and Ventilation*.—Composition of atmosphere and sources of air pollution. Elementary principals of natural and artificial ventilation. Effects of vitiated air upon health. The influence of ventilation on industrial fatigue and efficiency.

2. *Water Supply*.—Sources and character of water supply for domestic use. Sources of pollution and methods of purification on a small and large scale. Diseases conveyed by water.

3. *Waste Disposal*.—The hygienic aspects of collection and disposal of household dry refuse. Conservancy methods of excreta disposal. Domestic sanitary fittings. Elementary principles of removal, purification and disposal of liquid refuse and excreta.

4. *The Dwelling-House*.—Elementary principles of construction and prevention of dampness. The influence of housing on health. The hygienic aspects of artificial heating and lighting.

5. *The Public Health Services*.—Central and Local Authorities. Maternity and Child Welfare. Tuberculosis. Venereal Diseases. School Hygiene and Medical Inspection of School Children. National Health Insurance. Certificates under the Public Health and allied Acts that may be granted by practitioners.

6. *Foods*.—Food Values. The control of food supplies. Diseases associated with unsound or unsuitable food.

7. *Infectious Diseases*.—Notification. General methods of prevention. Hospitals and Isolation. Disinfection.

8. *Industrial Diseases*.—Notification. General methods of prevention. Illustrative Diseases.

9. *Vital Statistics*.—An elementary knowledge of birth rates and death rates, infantile mortality, case mortality of diseases, occupational mortality.

## APPENDIX II.

TEACHING INSTITUTION IN SCOTLAND  
RECOGNISED.

St Andrews—St Leonards School (for Biology).



## APPENDIX III.

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### INTIMATION BY THE GENERAL MEDICAL COUNCIL

ON and AFTER 1st January 1923, the following Regulations will be in force :—

1. Before registration as a student every candidate shall produce evidence that he has attained the age of seventeen years.
  2. The minimum standard of general education required will be that of University matriculation or entrance examination in the Faculties of Arts or Pure Science.
  3. Before registration as a student every applicant shall be required to have passed an approved Examination in General Education, and, in addition thereto, an Examination in Elementary Physics and Elementary Chemistry conducted or recognised by one of the Licensing Bodies.
  4. A student who has diligently attended an approved course of instruction in Elementary Biology at a Secondary School or other teaching institution recognised by a Licensing Body may be admitted to the Professional Examination in Elementary Biology immediately after his registration as a student.
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The following are the REGULATIONS which the General Medical Council has prescribed for the maintenance of the REGISTERS of MEDICAL and DENTAL STUDENTS, viz. :—

1. It shall be delegated to the Education Committee to prepare and issue from time to time a List of Examining Bodies whose examinations in General Education fulfil the conditions of and are specially recognised by the General Medical Council
2. The COUNCIL has recognised the undernoted University Examinations, subject to the conditions specified below :—
  - Birmingham University, Matriculation Examination.
  - Bristol University, Matriculation Examination.
  - Cambridge University, Previous Examination.

Durham University, Matriculation Examination.  
 Leeds University, Matriculation Examination.  
 Liverpool University, Matriculation Examination.  
 London University, Matriculation Examination.  
 Manchester, Victoria University, Matriculation Examination.  
 Oxford University, Responsions.  
 Scotland, Universities of, Preliminary Examination.  
 Sheffield University, Matriculation Examination.  
 Wales, University of, Matriculation Examination.

3. The conditions prescribed by the Council are :—

(1) The standard of the examination shall not be lower than that of the University Matriculation Examinations in the Faculties of Arts and Pure Science.

(2) The certificate shall bear evidence that the candidate has passed in the following subjects, viz. :—

1. English.
2. Mathematics, Elementary.
3. A language other than English.
4. An additional subject or subjects, as required by the regulations of the particular examination, to be chosen from the subjoined list, viz. : History, Geography, Physical Science, Dynamics, Natural Science, Latin, Greek, Hebrew, French, German, or other language accepted by the University for the purpose.

4. Subject to the conditions specified above (Section 3, Subsection (2)), the Council will recognise all examinations conducted by recognised authorities in Great Britain accepted by one or more of the above-named Universities as equivalent for purposes of Matriculation to an examination named in the preceding list (Section 2), *e.g.* :—

Bristol University : Higher School Certificate Examination ; Schools Certificate Examination.

Cambridge Local Examinations and Lectures Syndicate : Higher School Certificate Examination ; School Certificate Examination.



Central Welsh Examination Board : Higher Certificate Examination ; School Certificate Examination.

Durham University : Higher Certificate Examination ; School Certificate Examination.

London University : General School Examination ; Higher School Certificate Examination.

Northern Universities Joint Matriculation Board : Higher Certificate Examination ; School Certificate Examination.

Oxford and Cambridge Schools Examination Board : Higher Certificate Examination ; School Certificate Examination.

Oxford Delegacy for Local Examinations : Higher School Certificate Examination ; School Certificate Examination.

Scottish Education Department : Leaving Certificate Examination.

5. The Council will continue to recognise examinations conducted by Educational Bodies other than those (referred to in Section 4) directly recognised by the Universities of Great Britain. Recognition will not be extended under this section to any examination unless the Council is satisfied (1) that in scope and standard it is equivalent to a recognised Matriculation Examination of a British University, and (2) that it fulfils the conditions specified by the Council (Section 3, Subsection (2)).

Such Examinations are :—

The College of Preceptors (England) : Senior Certificate.

#### EXAMINATIONS IN IRELAND.

6. Subject to the specified conditions (Section 3, Subsection (2)), the Council will recognise the Entrance Examination to the School of Physic of the University of Dublin, and the Matriculation Examinations of the National University of Ireland, the Queen's University of Belfast, and the Irish Royal Colleges of Physicians and Surgeons, and all examinations accepted by one or more of these Bodies as equivalent, for purposes of entrance or Matriculation, to the above-named examinations.

7. The Council will recognise the Final Examinations for

Degrees in Art and Science of any University of the United Kingdom or of the British Dominions.

COLONIAL EXAMINATIONS.

8. Subject to the specified conditions (Section 3, Subsection (2)), the Council will recognise all examinations of Colonial Universities which are accepted by one or more of the British Universities as equivalent, for purposes of Matriculation, to an examination named in the list of examinations recognised by the Council (Section 2).