

- IV. Mathematics (two papers):
(a) Arithmetic and Algebra
(b) Geometry

- V. One of the following sciences:
(a) Physics
(b) Chemistry
(c) Elementary Physical Science (Physics and Chemistry)
(d) Botany
(e) Zoology
(f) Elementary Natural Science (Botany and Zoology)

- VI. (a) History and related Physical and Political Geography or
(b) Greek.

- (2). That candidates who desire to qualify for admission to the Examination in the Theory of Land Surveying or to the Examinations for the Degree of B.Sc. in Mining and Agriculture be permitted to substitute French or German for Latin.
- (3). That the names of the candidates who pass the Examination under the provisions of clause 2 be published in one unclassified list.
- (4). That in the case of all candidates the subjects in which they passed be recorded on their certificates.
- (5). That no candidates except those who are proceeding to a degree in the University be eligible for Exhibitions.

B. School Examinations.

I. University Senior Certificate Examination.

- (1). That an Examination, to be called The University Senior Certificate Examination for Schools, be instituted.
- (2). That the subjects for the University Senior Certificate Examination be as follows:*

I. English (two papers)

II. One of the following modern languages:

- (a) Dutch
(b) French
(c) German
(d) Portuguese
(e) Kafir (Xosa or Zulu)
(f) Sesuto
(g) Sechuana.

III. History and related Physical and Political Geography

IV. One of the following sciences:

- (a) Physics
(b) Chemistry
(c) Elementary Physical Science (Physics and Chemistry)
(d) Botany
(e) Zoology
(f) Elementary Natural Science (Botany & Zoology)

V. and VI. Two of the following:

- (a) Latin
(b) Mathematics (two papers):
(1) Arithmetic and Algebra
(2) Geometry
(c) (1) A second modern language from II., or
(2) an additional course in English Literature including prescribed books, or
(3) an additional course in Dutch Literature including prescribed books.
(d) (1) Elementary Agricultural Science, or
(2) a second science subject from group IV., provided that when two subjects are thus selected from that group (c) cannot be taken with either (a) or (b), nor (f) with either (d) or (e).
(e) Book-keeping and Commercial Arithmetic
(f) Domestic Economy
(The examination in this subject to be a written one, candidates being also required to produce a statement from a qualified inspector that adequate practical teaching has been received.)
(g) Music. (Intermediate or Advanced Division of a practical subject in the Music Certificate Examination, taken in the same year as the rest of the examination.)
(h) Drawing.

AGRICULTURE.

DRAFT SYLLABUS IN ELEMENTARY AGRICULTURAL SCIENCE.

The course is intended to be experimental throughout and to foster an interest in country life and lead up to an intelligent study of agriculture.

PLANT LIFE.

Seeds: Examination of structure of typical seeds - bean, buck-wheat, and maize. Conditions of germination - testing action of moisture and drought, heat and cold, light and darkness, absence or presence of air. Mode of growth. Source of food-supply (1) at first (2) later. Need of light for subsequent growth.

Roots: Examination of roots of the seedlings that have been grown; root hairs; secondary roots. Forms of roots of farm crops; food stored in carrot, mangel, etc. for next year's growth. Examine Roots and Shoots of wheat, barley, lucerne, strawberry runner, couch grass, potato. Roots need air and moisture. Action of gravity on roots placed horizontally.

Leaves: Shape: largest surface for light, air and evaporation. Transpiration; experiments on, in leafy shoots; absorption of coloured water; evaporation for leaves; variation with light and dryness of air; forms of leaf in dry countries. Which surface loses water; examination by lens of the two surfaces; stomata, and how opened and closed.

Formation of Starch: Simple tests for starch, and experiments on its formation in green leaves exposed to sunlight; protecting portions of leaves from sunlight, tinfoil, effect on colour and starch formation; air needed for starch formation, drowning leaves in water, closing pores with vaseline. Inspection of starch and chlorophyll granules under microscope.

Experiments on the part of the air needed for starch formation; formation of starch stopped in air free from carbonic acid gas. Wood charcoal, and starch charcoal. Formation of carbonic acid gas by their combustion; lime water test.

Stems and Buds: Structure of Buds, cabbage, oak, etc.; development of a bud; position on stem. Structure of a woody stem; pith, heartwood, sapwood, growing larger, bark. Yearly growth in thickness.

Healing of wounds on trees. Knots in timber. Budding and grafting. Formation of roots from cuttings, watercress in water, geranium or vine cuttings in soil. From what part of stem do roots start? Creeping stems; above ground and under ground. Peculiar forms shown by onions, tulip or other bulb, potato. Development of tulip bulb and crocus corm watched.

Flowers, Fruits and Seeds. Parts of a flower and their uses. Transference of pollen by wind and insects. Catkins. The parts that develop into fruit. Study of fruits: pods of peas, poppy capsules, acorns, apples, grapes, plums, raspberries, strawberries, vegetable marrow, pumpkin. Means of dispersal of fruits and seeds. Summary of life-history of a plant. Early dependence on food provided by parent. How plant obtains, stores, and spends its food. Annuals and biennials, bulbs, tubers, perennials.

THE SOIL.

Soil supplies Plant Food. Supplies water and certain other plant foods. Ash of plants where got. Planting seedlings in sand without and with various plant foods present in solution. Main foods, potash, phosphates, nitrates.

How Plants take their Soil Food: Experiments on absorption by roots of dissolved substances. Action of vinegar and acids on chalk marble; action of plant juices in rootlets of a bean seedling on marble.

Origin and Composition of Soil: Inspection of a section of soil and subsoil; formation from rocks beneath by air and water, and from hill sides by wind. The coarse and fine materials in soil; separation by decantation; stones, gravel, sand, clay. Character of sand and clay; contraction and hardness. Experiments on filtration of water through sand, loam and clay. Absorption of dissolved food-stuffs by soil. Importance for farmer of physical behaviour of soils.

/ wetting and drying bricks of earth, sand and clay;

Chalk and limestone an ingredient in most soils. Action of vinegar or hydrochloric acid. What gas is given off?

Burning chalk. Quicklime, slaked lime, and carbonate of lime. Importance of lime in soils, as plant food and as affecting porosity of clay-soils.

Humus in good soil; upper soils contrasted in colour etc. with subsoils; carbon and nitrogen humus. What becomes of humus? Has turned into nitre. Part played by germs (bacteria) in soil. Sourness of undrained soils.

Minute plants and insects as friends and enemies. Fermentation by yeast; inspection of the minute yeast plant; what food it needs besides sugar; conditions of growth, need of air, action of heat and cold, sterilizing products of fermentation, poisonous to the ferment.

Other instances of fermentation; bacteria. Useful bacteria as in butter, cheese, and soils; harmful bacteria, milk, effects of heat and cold, sunshine and cleanliness.

Insects. (Detailed syllabus to be prepared.)

MEASURING AND WEIGHING.

Comparison of Measures of Length: Yard, metre, Japa foot; inch and centimetre. Use of scales of length, and construction of simple paper scales.

Drawing to Scale: Simple objects in schoolroom; principles of projection applied to such cases, plans, elevations, and sections of simple objects.

Areas: Calculation of areas of rectangle, parallelogram, triangle and circle; squared paper. Examples of common calculations, - floors, roofs, wallpapers, fields, - each in the common units.

Cardinal Points: Daily motion of sun by observation. How to find true North and South line. The deviation of the Magnetic Compass for true North. A Sundial as time keeper.

Elementary Land Measurement: Simple exercises in use of tape or chain, - laying off right angles. Making a simple plan by pins, paper, and drawing board.

Volumes: Calculation of volumes of prism and cylinder, verification by weight of water displaced. Volumes of tanks, barrels, heaps of stones, etc.

Densities: Weighing and measuring simple solids. Weight per cubic foot of water, wood, iron, soil.

Machines: Theory of lever deduced from simple experiments. Example of lever - balances, steelyards. Other simple machines, wheel and axle, pulley, toothed wheels. Illustrations of these from common farm implements.

Structures: Triangle only figure which resist distortion. Illustrations from field gates, simple roof-truss, etc. Tie-beams and struts.

Drainage of Water: Principles of simple levelling to determine outfall and direction; making a simple level and staff. Amount of fall must be greater the smaller the pipe.

DRAFT SYLLABUS IN BOOKKEEPING AND COMMERCIAL ARITHMETIC.

- 1. General Principles: Bookkeeping by Single - and by Double Entry; difference between the two systems; the adaptability of the latter to all classes of commercial transactions.
- 2. The Books used in Double Entry. Varieties of Cash-books; Journal; Ledger; Sales-books; Purchase books; Bill books; and other subsidiary books.
- 3. The Balancing of books - methods and reason. Trial balance; Balance sheets; Preparation of Trading and Profit and Loss Accounts.
(Pitman's "Bookkeeping Simplified" will indicate the range of the Examination as far as the three divisions above-mentioned are concerned.)
- 4. The terms used in Commerce: The principal points of theory and practice with regard to Bills of Exchange, Promissory Notes, and Cheques.
- 5. Calculations required in Bookkeeping; Partnership Accounts; Accounts current; Equation of payment; Discount and Discount-notes, etc.

DRAFT SYLLABUS IN DOMESTIC ECONOMY.

1. Elementary Physiology of the Circulation, Respiration and Digestion.
2. Air in relation to life:- Ventilation, Heating and Lighting.
3. Water in relation to life:- Drainage and Water Supply, Hygiene of Bathing.
4. Clothing: Mechanical effects - weight, pressure.
Physiological effects - warmth, conductivity.
5. Housewifery: (a) Expenditure.
(b) Distribution of work in household.
(c) Housecleaning - utensils etc.
(d) Laundry - (principles not practice).
6. Food - constituents - the simple Chemistry of food.
7. Kinds, choice and combination of foods.
8. Preparation of food - (an elementary cooking course).
9. Treatment of slight wounds and accidents.
10. Care and diet of the sick.
11. Care and diet of infants and young children.

DRAFT SYLLABUS OF ADDITIONAL COURSE IN ENGLISH LITERATURE.

Candidates will be required to study four or five prescribed works, and to possess a general knowledge of the lives of their authors. The questions on the prescribed works will deal with the subject matter of the works, and will mainly take the form of topics for short essays. Some choice of questions (not less than two on each prescribed work) will be given to candidates.

(As an indication of the kind of works proposed the following lists for the years 1910 - 1913 are suggested.)

1910 Scott - Fortunes of Nigel

Goldsmith - Citizen of the world - Selections,
ed. Brockington (Blackie)

Shakespeare - Coriolanus

Tennyson - Coming and Passing of Arthur.

1911 Thackeray - Esmond

Addison - Selections - ed. Fowler (Macmillan)

Shakespeare - Twelfth Night

Milton - Paradise Lost, Book I.

1912 Jane Austen - Pride and Prejudice

Macaulay - History, Chapter I.

Shakespeare - Antony and Cleopatra

Scott - Lady of the Lake.

1913 Dickens - Barnaby Rudge

Lamb - Essays of Elia (First Series)

Shakespeare - As You Like It.

Byron - Childe Harold, Cantos 3 and 4.

- (3). That the syllabuses and papers for subjects I. (English) II. (Modern Languages), III. (History), IV. (Science subjects) and for Latin and Mathematics be the same as for the Matriculation Examination.
- (4). The syllabuses in the Annexures to this Report* are provisionally suggested.
- (5). That the names of the successful candidates be arranged in three classes, the names in each class being published in alphabetical order.
- (6). That in the case of all candidates the subjects in which they passed be recorded on their certificates.
- (7). That permission be given to candidates who have passed in the I or II class in the University Senior Certificate Examination to complete their Matriculation Examination provided they take 4 subjects (which must include those Matriculation subjects not already taken for the Senior Certificate) and obtain in each subject 80 per cent. of the marks and the usual aggregate of 40 per cent. on the whole examination.

II. School Higher Examination.

- (1). That the School Higher Examination be called The University Junior Certificate Examination for Schools.
- (2). That provision be made for the inclusion of South African History in the subjects for this Examination.

The items were considered seriatim, and the following decisions were recorded:

A. (1) This was adopted.

(2) This was referred back to the Committee for further consideration, in view of the fact that it would enable candidates who did not take Latin in the Matriculation Examination to become matriculated students of the University and to proceed to a degree.

(3) }
 (4) } These were referred back to the Committee for further consideration.
 (5) }

B. I. (1) This was adopted.

(2) This was adopted.

(3) This was adopted.

(4) The Committee was instructed to complete the syllabuses for submission to the Council at its next meeting.

(5) This was adopted.

(6) This was adopted.

(7) This was adopted.

B. II (1) This was adopted.

(2) This was adopted.

It was further resolved

That the Committee be instructed to consider and report as to whether the interval to be allowed for between a candidate's passing the Junior Certificate Examination and taking the Senior Certificate or the Matriculation Examination should be one year or more, and that it should frame its syllabuses and standards for the Junior Certificate Examination with a special view to this question.

The following Report of the Special Committee appointed to consider and report upon the Syllabuses and Standards for the Intermediate Examination (new scheme, to come into force in 1910) was submitted:

August 1908

Report of Sp. Comm. on
Intermediate Exam. (New
Scheme) (C.A.P.)

19 Report of the Special Committee appointed to consider
and report upon the Syllabuses and Standards for the
Intermediate Examination (New Scheme)*.
(Submitted 21st August, 1908.)

Committee.

- Professor Hahn
 - Professor Buchanan
 - Professor Martin
 - Professor Morrison
 - Professor Macfadyen
 - Professor Hotcutt
 - Professor Ritchie
 - Professor Viljoen.
- Chairman: Professor Beattie.

*Subjects of Examination under the New Scheme:

- (1) English
- (2) Latin or Mathematics
- (3) Dutch or French or German
- (4) Applied Mathematics or Physics or Chemistry or Botany or Zoology or Geology.
- (5) At least one and not more than two of History or Greek or any one of the subjects enumerated in (2), (3) and (4), if not already taken.

The Committee has considered certain resolutions referred to it by the Joint Literature and Science Committee and submits the following recommendations:

A. Syllabuses.

- (1) That no change be made in the syllabus for English except that the words "in outline with reference to special authors" be substituted for the words "(prescribed portions)". (See Calendar 1908-9, p. 104, section 8)
- (2) That no change be made in the syllabuses for Classics, Dutch, French or German, or for Applied Mathematics, Zoology or Geology.
- (3) That the syllabuses for the remaining subjects be as shown in the Annexures to the Report as under:

- (a) Pure Mathematics - Annexure A*
- (b) Physics - Annexure B*
- (c) Chemistry - Annexure C*
- (d) Botany - Annexure D*

B. Standards

- (1) That the marks for the various subjects be as follows:

English	300
Latin or Mathematics	350
Dutch or French or German	250
Applied Mathematics or Physics or Chemistry* or Botany or Zoology or Geology	300
History	250
Greek	300

* (Written 180, Practical 120, the minimum to be obtained in both the written paper and the practical examination.)

- (2) That 20 per cent be the minimum on each compulsory subject and that in the aggregate the minimum be 40 per cent on the maximum aggregate for five subjects, and that in the optional subjects no marks under 20 per cent be counted.

The items were considered seriatim, and the following decisions were recorded:

- A (1) This was adopted.
- (2) This was adopted.



SYLLABUS FOR MATHEMATICS (Two papers.)

ALGEBRA:-

Equations of the second degree in one or two variables and equations which may be reduced to these forms by simple substitutions, theory of the quadratic equation, indices and surds, arithmetical and geometrical progression, theory and use of logarithms. The meaning of and elementary exercises in the uses of rectangular coordinates. Graphical solution of simultaneous simple equations in two variables. (N.B. The questions may include "easy transformations" connected with the preceding subjects.)

GEOMETRY:-

Triangles with given angles described in and about a circle.

Simple cases of Associated Circles of triangles.

Regular polygons described in and about a circle

Circles described in and about a regular polygon.

The areas of triangles or parallelograms of equal altitudes are to one another as their bases.

If two triangles have two sides of the one proportional to two sides of the other, and the angles opposite to one pair of corresponding sides equal, the angles opposite to the other pair of corresponding sides are either equal or supplementary.

In a right-angled triangle, if a perpendicular be drawn from the right angle to the hypotenuse, the triangles on each side of it are similar to one another and to the whole triangle.

If two triangles or parallelograms have one angle of the one equal to one angle of the other, their areas are proportional to the areas of the rectangles contained by the sides about the equal angles.

The areas of similar triangles are proportional to the squares on their corresponding sides.

The areas of similar polygons are proportional to the squares on their corresponding sides.

The areas of similar polygons inscribed in circles are proportional to the squares on the radii of the circles.

On a given straight line to describe a rectilineal figure similar and similarly situated to a given rectilineal figure.

A pair of similar rectilineal figures are similarly described on the first and second of four straight lines, and also a pair of similar rectilineal figures are similarly described on the third and fourth. If the four straight lines are proportional, the figures are proportional and conversely.

In a right-angled triangle, any rectilineal figure described on the hypotenuse is equal to the sum of the similar and similarly described figures on the other two sides.

of a triangle
If the vertical angle be bisected by a straight line which cuts the base, the square on this bisector is equal to the difference between the rectangle contained by the sides of the triangle and the rectangle contained by the segments of the base. If from the vertical angle of a triangle a perpendicular be drawn to the base, the rectangle contained by the sides of the triangle is equal to the rectangle contained by the perpendicular and the diameter of the circle circumscribing the triangle.

The rectangle contained by the diagonals of a quadrilateral inscribed in a circle is equal to the sum of the two rectangles contained by its opposite sides.

To construct a rectilineal figure which shall be similar to one given rectilineal figure and equal to another.

Any two similar rectilineal figures may be so placed that the lines joining corresponding vertices are concurrent.

If a transversal is drawn to cut the sides, or the sides produced, of a triangle the product of three alternate segments is equal to the product of the other three segments.

If three concurrent straight lines are drawn from the angular points of a triangle to meet the opposite sides, then the product of three alternate segments taken in order is equal to the product of the other three segments.

In equal circles, angles at the centres or angles at the circumferences are proportional to the arcs on which they stand; so also are the sectors.

to be
(Note:- It is assumed that it is impossible to distinguish between a circle and an inscribed regular polygon of a sufficiently large number of sides, and hence, that each side of the polygon must be taken as coinciding with the corresponding arc.)

In any two circles arcs subtending equal angles at the centre are proportional to the radii of the circles.

If in two circles arcs are cut off proportional to the radii, they subtend equal angles at the centre.

Definition of a radian.

The circumference of a circle is proportional to the radius of the circle.

The areas of sectors of equal angles in different circles are proportional to the squares of the radii.

The area of a circle is proportional to the square of its radius, and is equal to the product of half the circumference and the radius.

(Note:- In the above propositions proofs for commensurable quantities only are required.)

Definition of a plane.

Determination of a plane by two intersecting straight lines, by three points not in the same straight line, or by two parallel straight lines.

The line joining two points, one in each of two intersecting or two parallel lines lies in the plane containing these lines.

The intersection of two planes is a straight line.

If a line is perpendicular to two straight lines in a plane then it is perpendicular to every straight line in the plane.

Definition of perpendicular to a plane.

Only one perpendicular can be drawn through any one point to a plane.

If a straight line is perpendicular to three straight lines intersecting in a point, these three straight lines lie in a plane.

If two straight lines are perpendicular to the same plane, they are parallel.

If two straight lines are parallel, and one is perpendicular to a plane, the other is perpendicular to the same plane.

To draw a perpendicular to a plane from a point outside or in the plane.

If two straight lines are parallel to a third straight line, they are parallel to each other.

The projection of a straight line on a plane is a straight line.

The angle between a line and its projection on a plane is smaller than the angle made by that line with any other line in the plane drawn to intersect it.

Definition of the angle between a straight line and a plane.

If a pair of intersecting straight lines are respectively parallel to another pair of intersecting straight lines, the two pairs contain equal angles.

Definition of the angle between two planes.

Definition of parallel planes.

Planes to which the same straight line is perpendicular are parallel.

If a pair of intersecting straight lines are respectively parallel to another pair of intersecting straight lines, the plane containing the first pair is parallel to the plane containing the second pair.

If two parallel planes are cut by a third plane, the lines of intersection are parallel.

If any two straight lines are cut by three or more parallel planes, they are cut proportionally.

If a straight line is perpendicular to a plane, every plane containing it is perpendicular to that plane.

If two intersecting planes are both perpendicular to a third plane, the intersection of the first two is perpendicular to the third plane.

(No question on Practical Geometry will be set.)

-4-

TRIGONOMETRY:-

Measurement of angles, definitions of, and relations between, trigonometrical ratios for angles of any size, expression of the ratios of all angles in terms of those of angles less than 90° and 45° , graphs of the trigonometrical ratios, the trigonometrical ratios of the sum and difference of angles (where the angles are less than 180°) and results immediately deducible from these, application of logarithmic tables to trigonometrical computations, solution of triangles, calculation of heights, and distances (simple cases), measurement of angles in radians, sine and tangent of a small angle.

SYLLABUS FOR PHYSICS.

HEAT

- (a) Fundamental dynamical concepts: Force, mass, work, energy; weight; density and specific gravity; pressure in liquids and gases, Archimedes' principle, Boyle's Law.
(The dynamics and hydrostatics required will be restricted to what is needed for the study of the remaining portion of the physics syllabus.)
- (b) Heat
Temperature. Liquid thermometers, construction, graduations, and use. Conduction, convection and radiation. Expansion of solids, liquids, and gases. Unit of heat. Specific heat of liquids and solids. Measurement of latent heat by method of mixtures, method of cooling by ice calorimeter and by steam calorimeter. Fusion and solidification. Melting points; freezing mixtures; change of volume on melting. Evaporisation and condensation. Pressure of saturated vapours. Boiling point. Change of volume on evaporation. Dewpoint. Dynamical equivalent of heat.
- (c) Light.
Propagation of light. Photometry. Laws of reflection and of refraction. Simple methods of determining the refractive index. Plane and spherical mirrors excluding caustics; prism; experimental laws of a thin lens; magnifying glass, spectacles, simple forms of microscope and telescope. Dispersion and colour. Colour by absorption. Colour of ordinary bodies.
- (d) Electricity and Magnetism.
Electric forces and electric charges. Positive and negative electricity. Electric field. Conductors and non-conductors and their behaviour in the electric field. Electric potential and energy. General notions of capacity of a field, and condensers in air and other dielectrics. Magnets, their construction and properties. Poles of a magnet. Magnetic force. Law of inverse squares. Strength of pole and moment of a magnet. Magnetic field - mapping magnetic field. Thermal, magnetic and chemical effects of electric currents. Laws of electrolysis: voltaic cells. Electromotive force. Ohm's Law. Joule's law of heating. Cells and conductors in series and parallel. Tangent galvanometer and measurement of current. Elementary use of Wheatstone's bridge. Use of voltmeter.

ANNEXURE C,

SYLLABUS FOR CHEMISTRY.

Written Examination.

The constitution of matter; atoms and molecules. Fundamental chemical laws. Principal methods of ascertaining the volumetric composition of gaseous compounds.

Methods of determining equivalent weights and atomic weights. Molecular weights of gases. Electrolysis and elementary notions of the ionic theory of solutions. General laws of gases. Dissociation. Allotropy. Transition point. Stable and metastable conditions. Solutions of gases and solids in water.

Mass relations and classification of the elements. Elementary notions of mass action, reversible reactions, chemical equilibrium. Exothermic and endothermic reactions.

Combustion, structure of flame. Oxidation and reduction. Classification of oxides. Nature of acids, bases and salts. structural formulae and compound radicals. Chemical equations and calculations relating to weight and volume. Calculations of percentage composition and empirical formulae.

The chief sources, preparation and properties of the elements and their more common compounds, in particular:- Oxygen, hydrogen, water, hydrogen peroxide, ozone, nitrogen, atmospheric air, compounds of nitrogen and oxygen, nitric acid, nitrous acid, ammonia and ammonium compounds, the halogens and their hydrogen compounds, hypochlorites and chlorates, sulphur, sulphurous oxide and acid, sulphuric oxide and acid, sulphuretted hydrogen, carbon, oxides of carbon, methane, ethylene, acetylene, coal gas, carbon disulphide, boracic acid, silica, silicon fluoride, phosphorus, gaseous phosphorus hydride, phosphorous and phosphoric oxides, phosphorus trichloride and pentachloride, phosphoric acids. A general knowledge of the chief sources and properties of the following elements and their more common compounds, in particular:- potassium, sodium, magnesium, calcium, strontium, barium, zinc, manganese, chromium, iron, aluminium, cobalt, nickel, silver, copper, bismuth, lead, cadmium, mercury, arsenic, antimony, tin. *Gold, Platinum*

Practical Examination.

The time allowed for the examination is 6 hours.

Candidates will be expected to undertake the following work:-

- I. Qualitative analysis of three simple salts soluble in water or in acids involving recognition of the following ions in solution:- Nitrate, nitrite, chloride, bromide, iodide, fluoride, sulphide, sulphate, sulphite, carbonate, borate, orthophosphate, silver, lead, mercurous, mercuric, bismuth, copper, cadmium, arsenious, antimony, stannous, stannic, aluminium, chromium, ferrous, ferric, zinc, manganese, nickel, cobalt, barium, strontium, calcium, magnesium, ammonium, sodium, potassium.

II. In addition to the above, either simple preparations of chemical substances or "simple" metric estimations, such as, the determination of the loss on heating various substances, e.g. KClO_3 , NaHCO_3 , $\text{MgSO}_4 \cdot 7\text{H}_2\text{O}$, etc., the determination of equivalents of such elements as are soluble in dilute acids or such as are easily oxidised by heating in air or by other oxidising agents, may be set by the examiner. Full details for the execution of these experiments will be stated in the paper set. The questions which will be set in this portion of the paper will involve experimental manipulation of such a character as the student may be expected to have performed in an ordinary course of practical chemistry preparatory for this examination.

ANNEXURE D.

SYLLABUS FOR BOTANY.

To remain as at present with the following alterations:

- (a) For "endosperm, perisperm" put "storage of food".
- (b) After "plant" put colon instead of comma.
Add after "leaf" - "phyllotaxis, vernation, and aestivation".
Add after "fruit" - "Candidates may be required to answer questions on these subjects relative to specimens submitted to them."
- (c) For "dimorphism" put "heteromorphism".
- (d) Omit "Aspidium, Pinus".
- (e) Omit present text and put instead "Life Histories of a Liverwort, Aspidium, Selaginella, and Pinus".
- (f) After "Zea" omit "and Dracaena".
- (g) Instead of "diagnostic characters of the following natural orders" put "a general knowledge of the following natural orders as illustrated by important types native of or cultivated in South Africa."
- (h) Omit all words after "proscribed in H."

August 1908

A (2) This was adopted, with the addition of the words 'gold, platinum' to the syllabus in Chemistry.

B (1) This was adopted, with the following amendment, viz. The words 'Applied Mathematics 300' were deleted and the following substituted in their place:

" Applied Mathematics or Physics or Chemistry ... 300
or Botany or Zoology or Geology ... 250 "

B (2) This was adopted.

The following Report of the Joint Literature and Science Committee was submitted:

REPORT OF THE JOINT LITERATURE AND SCIENCE COMMITTEE.

(Submitted 21st August, 1908)

1. Date of next meeting.

The Committee recommends that the next meeting of the Literature and Science Committees be held on Tuesday, July 6th, 1909.

2. Syllabuses and Standards of the Intermediate Examination.

The Committee reports that it remitted this question with certain recommendations to the Literature and Science Committees and would refer the Council to the special report on the subject to be submitted to it at the present meeting.

3. Examination for B.A. in Literature and Science combined.

The Committee recommends:

(a) That in addition to the existing regulations the pass degree of B.A. be granted to candidates satisfying the examiners in

- A. Four subjects in the Department of Literature and Philosophy and one subject in the Department of Science, or,
- B. Two subjects in the Department of Literature and Philosophy and two subjects in the Department of Science.

(b) That candidates selecting Course A shall take:

- I. Latin or Greek
- II. English or Dutch or French or German
- III. History or Logic and Psychology
- IV. One of the following subjects:
 - (1) Mathematics
 - (2) Physics
 - (3) Chemistry
 - (4) Geology
 - (5) Botany
 - (6) Zoology (including Comparative Anatomy)
 - (7) Biology (i.e. Botany and Zoology), Biology

provided that no candidate will be allowed to take as a subject who has already taken either Botany or Zoology in the Intermediate Examination.
- V. One of the subjects under I., II., or III. not already taken.

(c) That candidates selecting Course B shall take:

- I. Two of the following subjects (provided that no two subjects be taken from the same group):
 - (1) Latin
 - (2) Greek
 - (3) English or Dutch
 - (4) History or Logic and Psychology
 - (5) French

19.

Report of Joint
Lit. & Sci. Comm.

August 1908

Report of the Lit. & Science Comm. (cont'd)

II. Two of the following subjects (provided that (2) cannot be taken without (1); and that neither (6) nor (7) can be taken with (8)):

- (1) Mathematics
- (2) Applied Mathematics
- (3) Physics
- (4) Chemistry
- (5) Geology
- (6) Botany
- (7) Zoology (including Comparative Anatomy)
- (8) Biology (i.e. Botany and Zoology)

provided that no candidate will be allowed to take Biology as a subject who has already taken either Botany or Zoology in the Intermediate Examination.

- (d) That candidates selecting Course A may take Honours in the Department of Literature and Philosophy, and those selecting Course B may take Honours in the Department of Science.
- (e) That the syllabuses and papers for the examination be the same as for the existing examinations in the Departments of Literature and Science respectively.

4. Separation of B.A. Honours & Pass Examinations.

The Committee recommends that candidates be allowed to take the B.A. Examination in Honours one year after satisfying the examiners in the Pass subjects; and that in view of this the regulations as to University scholarships be reconsidered by the Council.

The items were considered seriatim, and the following decisions were recorded:

- (1) This was adopted.
- (2) This was noted.
- (3)(a) This was adopted.
- (b) This was adopted, with the omission of the whole of IV (7) ["Biology ... Examination"].
- (c) This was adopted, with the omission of the words "and that neither (6) nor (7) can be taken with (8)", and of the whole of II (8) ["Biology ... Examination"].
- (d) It was resolved

That a Special Committee be appointed to consider and report upon this along with the whole question of Honours in the B.A. Examination, and the following Committee was subsequently appointed:

Professor Beattie	Professor Martin
Mr Fremantle	Professor Morrison
Dr. Kolbe	Professor Ritchie
Professor Logeman	Rev. Mr. Russell
Professor Mackenzie	Professor Viljoen
Professor Marais	Professor Walker

with Professors Broom, Gilchrist and Pearson as Assessors.

(e) This was adopted, with the addition of the word 'Pass' between the words 'existing' and 'Examination'

4. This was not adopted.

At this stage the meeting was adjourned to the 22nd August at 10 A.M. when the following Report of the Literature Committee was submitted:

August 1908.

REPORT OF THE LITERATURE COMMITTEE.

(Submitted 21st August, 1908)

1. Special Subjects for 1910.

1. The Committee recommends the following works as Special Subjects in the Examinations for 1910: (see attached slip).

2. Modern Languages. General

The Committee submits the following recommendations, and has deferred consideration of the syllabus of the B.A. Honours Examination in Dutch, French and German pending a decision on recommendation (a):

- (a) That at the B.A. Honours Examination in Modern Languages, two languages only be required instead of three as at present.
- (b) That candidates for Honours in Modern Languages be required to pass in a third modern language at any Intermediate Examination previous to their B.A. Examination.
- (c) That the same proportion of marks be accepted as qualifying for a scholarship in the case of Modern Languages as in the case of other subjects.

3. Regulations and Syllabuses.

The Committee recommends the following alterations in Examination Regulations and Syllabuses, to take effect in 1910, unless otherwise stated:

A. English.

Matriculation. Add "Other questions testing the ability of the candidate to use the language correctly."

Intermediate. Regulation 8 (see Calendar 1908-9, p. 104) for the words "(prescribed portions)" substitute "in outline with reference to special authors".

B.A. Honours. That the following scheme previously adopted for this examination be confirmed viz,

First Paper.

Part I. Essay.

Part II. Either Some Department of Literature with prescribed works illustrative of that department.

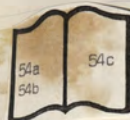
OR A Period of Literature with prescribed works from the period.

Second Paper.

Part I. The works of some one author, certain of his works to be studied particularly.

Part II. The elements of Anglo-Saxon and Middle English, with prescribed portions of text.

Simple passages to be given for unprepared translation, and questions on the history of the language.



University of the Cape of Good Hope.

SPECIAL SUBJECTS FOR THE EXAMINATIONS OF 1910.

SCHOOL HIGHER EXAMINATION.

ENGLISH:

- Lamb.—*Tales from Shakespeare* (ed. Flather. Pitt Press), *The Tempest*, *As You Like It*, *The Merchant of Venice*, *King Lear*, *Twelfth Night*, *Hamlet*.
- Scott.—*Lay of the Last Minstrel*.

MATRICULATION EXAMINATION.

ENGLISH:

- Macaulay.—*History of England*, Chapter III.
- Shakespeare.—*Midsummer Night's Dream*.

LATIN:

- Caesar.—*Civil War*, III.

GREEK:

- Lucian.—*Menippus*.

INTERMEDIATE EXAMINATION.

ENGLISH:

1. History of the Language.
Henry Sweet.—*Primer of Historical English Grammar* (Clarendon Press).
(Candidates are recommended to study lines 1 to 308 of Chaucer's *Prologue* in illustration of the history of the language).
2. History of English Literature, with special reference to Chaucer, Spenser, Shakespeare, Bacon, Milton, Dryden, Pope, Addison, Wordsworth, Scott, Byron, Shelley, Keats, Tennyson. (Stopford Brooke's *Primer of English Literature* will indicate the general range of the examination.)
3. Special Texts.
Palgrave.—*Golden Treasury* (First Series) Book II.
R. L. Stevenson.—*Memories and Portraits*.

LATIN:

- Pliny.—*Letters*, Book VI.
- Vergil.—*Aeneid I*.

GREEK:

- Lysias.—*In Alcibiadem I*.
- Plato.—*Apology*.

B.A. EXAMINATION.

ENGLISH:

Pass Examination:

First Paper.

- Period of Literature: 1579—1750.
- Shakespeare.—*Love's Labour's Lost*, *Henry IV*. (Parts I and 2), *Romeo and Juliet*, *Othello*, *A Winter's Tale*.

Second Paper.

- Marlowe.—*Edward II*.
- Milton.—*Ode on the Morning of Christ's Nativity*, *L'Allegro*, *Il Penseroso*, *Lycidas*.
- Wordsworth.—(Golden Treasury Edition), *Narrative Poems*, *Lyrical Poems*, *Sonnets* 3, 6, 8, 9, 19, 20, 23, 28, *Ode on Intimations of Immortality*.
- Coleridge.—*Biographia Literaria*, Chapters 1, 3, 4, 14—22.
- English Essays (ed. J. H. Lobban—Blackie's Warwick Library).—*The Essays of Johnson*, Goldsmith, Hazlitt and Lamb.

- Honours Examination (New Regulations):**
First Paper, Part II.
 The English Drama from Gorboduc to the death of Mariowe, with special reference to Manly's *Pre-Shakesperian Drama*. Vol. II. (Ginn.)
OR History of English Literature from 1830 to 1900, with a special knowledge of the following works:
 Tennyson.—*Poems of 1842* (not including those previously published).
 Browning.—*Men and Women* (as in the final edition).
 Carlyle.—*Heroes and Hero Worship*.
 Meredith.—*Ordeal of Richard Feverel*.
 Arnold.—*Selected Poems* (Golden Treasury edition).
- Second Paper, Part I.**
 The Works of Keats, with special reference to the poems of 1820.
- Second Paper, Part II.**
 Cook.—*First Book in Anglo-Saxon* (Ginn).
 Sweet.—*Second Middle English Primer* (Clarendon Press).
 Wyld.—*Historical Study of the Mother Tongue* (Murray).
- LATIN:**
Pass Examination:
 Cicero.—*Tusculan Disputations II*.
 Livy.—*Book XXIV*.
 Terence.—*Andria*.
 Horace.—*Odes IV*.
Honours Examination:
 Tacitus.—*Annals XIV*.
 Lucretius.—*Book V*.
- GREEK:**
Pass Examination:
 Thucydides.—*Book IV*.
 Plato.—*Meno*.
 Euripides.—*Alkestis*.
Honours Examination:
 Longinus.—*On the Sublime*.
 Aristophanes.—*Birds*.
 Period of Roman History.—Julius Caesar and Augustus.
 Period of Greek History.—The Peloponnesian War.
- DUTCH:**
Pass Examination:
First Paper.
 Section A.—Period of Literature: 1830—1880.
 Section B.—Wolff en Deken.—Sarah Burgerhart (ed. Wereldbibliotheek, 1—2).
 Staring.—*Marco, Jaromir*.
 Jonathan.—*Waarheid en Droomen (de Haarlemsche Courant, het Album, de Huislok)*.
 Gram.—*Een Haagsch Fortuin*.
Second Paper.
 Vondel.—*Noah*.
 Huyghens.—*Hofweyk*.
 Justus van Effen.—*Hollandsche Spectator*. (Bloemlezing door J. Koopman, ed. Wolters, Groningen.)
Honours Examination:
First Paper.
 Section A.—*Esmoreit* (ed. Van Alle Tijden, I.).
Second Paper.
The Dutch Novel from 1860—1890.
 Bosboom-Toussaint.—*Majoer Frans*.
 Schimmel.—*Verzoend*.
 Couperus.—*Eline Vere*.
- FRENCH:**
Pass Examination:
First Paper.
 Section A.—Period of Literature: 17th Century.
 Section B.—La Fontaine.—Books I, IV.
 Bossuet.—*Oraison funèbre d'Henriette de France, reine d'Angleterre*.
 Molière.—*Misanthrope*.

Second Paper.

- Balzac.—*Eugénie Grandet*.
- Taine.—*Nouveaux Essais de Critique et d'Histoire*: **Balzac**.
- Augier et Sandeau.—*Le Gendre de M. Poirier*.
- La Lyre française*.—Section VI.

Honours Examination:

First Paper.

Section A.—*Voyage de Charlemagne à Jérusalem*.

Second Paper.

- The French Drama from 1830—1850*.
- V. Hugo.—*Hernani*.
- Sandeau.—*Mademoiselle de la Seiglière*.
- Scribe.—*Bertrand et Raton*.

GERMAN:

Pass Examination:

First Paper.

- Section A.—Period of Literature: 1724—1832.
- Section B.—Goethe.—*Hermann und Dorothea*.
- Lessing.—*Nathan der Weise*.
- Schiller.—*Das Lied von der Glocke, Die Künstler*.

Second Paper.

- Grillparzer.—*Sappho*.
- Spiehlagen.—*Selbstgerecht* (ed. Allgemeine Romanbibliothek, Engelhorn, Stuttgart).
- Heine.—*Buch der Lieder*.

Honours Examination:

First Paper.

Section A.—*Der Nibelunge Nôt*, Av. 1, 2, 3, 4, 5, 6. (Ed. Golther in Sammlung Göschen).

Second Paper.

Goethe.—*Faust*, Part I, and general study of Part II.

MENTAL AND MORAL SCIENCE:

Honours Examination. (New Scheme):

Third Paper:

Greek Ethics from Socrates to Aristotle, with a special study of Plato's *Republic* (translated by Davis and Vaughan).

Fourth Paper:

The Theory of Knowledge in the period from Descartes to Kant, with a special study of Watson's *Selections from Kant*, pp. 1—222 (viz., the selections from the Critique of Pure Reason).

HISTORY:

Honours Examination. (New Scheme):

Fourth Paper:

Period of the Renaissance and the Reformation.

Chalmers Memorial Prize.

SUBJECT FOR 1909.

The Subject selected for the Essays for the above Prize will be announced in the *University Gazette* for December, 1908.

W. THOMSON,
Registrar.

University Buildings,
Cape Town,
September, 1908.

August 1908

B. Dutch.

I. School Higher and Matriculation.

(a) That the Dutch paper be arranged in four sections as follows:

(A) Accidence and simple syntax	75 marks.
(B) Translation from and into English of detached and continuous passages	125 $\left. \begin{array}{l} (75) \\ (50) \end{array} \right\}$
(C) Easy original composition	50
(D) Questions on a prescribed work to test the candidate's acquaintance with its matter	50
	<hr/> Total 300

(b) That from 1910 and onwards questions in the Dutch papers may be set in Dutch.

II. B.A. Pass. That the following be substituted for Regulation 10 (see Calendar 1908-9, p. 124):

First Paper.

Section A.

Questions on a period of literature, the period for the present remaining 1880 - 1880.

Section B.

Questions on considerable portions of standard authors to be selected from the prescribed period.

Section C.

To remain as it is.

Second Paper.

This paper will deal with the language, subject matter and history of works to be prescribed from the 17th and 18th century, and with the lives of their authors.

C. French and German.I. Matriculation.

That the papers in French and German in and after 1909 be arranged as follows:

Sections A, B and C - as at present:
Section D - Composition:
75 marks to be assigned to each section.

II. B.A.

That at the B.A. Examination translation from French and German into English should be either of unseen passages, or, if from the prescribed works, should be confined to points of special interest.

D. Mental and Moral Science.M.A.

(See Department III. p. 174, Calendar 1908-9)

8 (B) read "The Cartesian Philosophy with special reference to the philosophical works of Descartes and Spinoza."

8 (f) and (k) to be deleted.

8 (g) (h) (i) (j) to be relettered.

G. French History.

- (a) The Committee has reconsidered the report submitted by it to the Council in May last, as directed, with special reference to the inclusion of a paper on South African History in the B.A. Pass Examination and to the proposed First Paper in the Honours Examination. The subjects and standards then recommended were as follows:

- I. That the History subjects for the B.A. Examination be as follows:

B.A. Pass Examination.

- First Paper: Either A. General History of Europe, 1250-1517, A.D.
Or B. Political History of England, 1603-1815.
- Second Paper: Constitutional History of England, 1603-1867.

B.A. Honours Examination.

- First Paper: The subjects of the Pass Examination treated more fully.
- Second Paper: As for (a) of Second Paper under present regulations.
- Third Paper: (a) As for First Paper under present regulations.
(b) History of South Africa, Political and Constitutional to 1873.
- Fourth Paper: A period of Modern History.
- Fifth Paper: An Essay (a choice of three subjects will be given.)

- II. That the scheme of marks for the B.A. Honours Examination be as follows:

	Maximum	Minimum
First Paper	250)	
Second Paper	250)	
Third Paper (a)	150)	600
(b)	100)	
Fourth Paper	250)	
Fifth Paper	200)	

- (b) The following resolutions were adopted by the Committee:

- I. That South African History, political and constitutional to 1881, be the subject of a third paper in the B.A. Pass course, and that the marks be rearranged as follows:
First Paper 150
Second Paper 155
Third Paper 100
- II. That in consequence South African History be eliminated from the Honours course where it at present forms section (b) of the second paper.
- III. That the first paper of the Honours course, in the report submitted to the Council May 15th 1908, be retained.
- IV. That the paper on the General History of Colonization should also include a new sub-section, entitled Colonial Federal Constitutions as exemplified in the United States, Canada, Australia.
- V. That "the General History of the self governing British colonies" be substituted for "the General History of the British colonies and dependencies" in the second paper of the present syllabus.
- VI. That the scheme of marks for the B.A. Honours Examination be as recommended in the report submitted to the Council on May 15th.

- (c) The subjects and standards finally recommended are accordingly as follows:

B.A. PASS.

- First Paper: Either A. General History of Europe, 1250-1517, A.D.
Or B. Political History of England, 1603-1815.
- Second Paper: Constitutional History of England, 1603-1867.
- Third Paper: South African History, Political and Constitutional to 1881.

August 1908

Papers of Literature Exam. (cont.)

B.A. Honours.

- First Paper:** The subjects of the Pass Examination treated more fully.
- Second Paper:** The general history of the self governing British Colonies.
- Third Paper:** (a) Colonization Ancient and Modern (as present First Paper).
(b) Colonial Federal Constitutions as exemplified in the United States, Canada and Australia.
- Fourth Paper:** A period of Modern History.
- Fifth Paper:** An Essay (a choice of three subjects will be given).

		Marks	Maximum	Minimum
<u>B.A. Pass</u>	First Paper	155	}	82
	Second Paper	155		
	Third Paper	100		
<u>B.A. Honours</u>	First Paper	250	}	600
	Second Paper	250		
	Third Paper (a)	150		
	(b)	100		
	Fourth Paper	250		
	Fifth Paper	200		

(d) The following detailed syllabuses and recommendations (as included in the Committee's report of 15th May last) are resubmitted: B.A. Pass Examinations

General History of Europe. 1250—1517.

I. *The Hapsburgs and the Empire. Their relations with the Church and the Papacy in the later Middle Ages.*

The victory of the Papacy over the Empire and its causes. The Interregnum and its results. The rise of the Hapsburgs—Rudolph and Albert of Austria. The Teutonic Knights and the conquest of Prussia. The formation of the Swiss Confederation. Boniface VIII. and the Bull Clericis Laicos. The House of Luxemburg—Henry VII. The House of Bavaria—Lewis IV. The Avignon Popes and the Babylonish Captivity. Charles IV. and the Golden Bull—its objects and results. The Emperors Wenzel and Sigismund. The Schism in the Papacy. The Con-

iliar movement—Councils of Pisa, Constance, Basle, Ferrara and Florence. The Hussite movement. The advance of the Ottoman Turks and the capture of Constantinople. Reaction of Europe against the Turks—John Hunyady. The Emperors Frederick III. and Maximilian I. The Hanseatic League and its decline in the fifteenth century.

II. *The Growth of Nationality in Europe.*

France.

The development of the monarchy in France under the later Capets and the early Valois. Philip III. and the Toulouse inheritance. Philip IV.—his wars with Flanders—relations with Boniface VIII.—suppression of the Templars—the States General and reforms in the administration—feudal appanages. The causes of the Hundred Years War with England. The victories of Edward III. in France. Charles V. and the expulsion of the English. Burgundy and the Netherlands. The Burgundians and Armagnacs and the conquests of Henry V. The recovery of France—Joan of Arc and the administrative reforms of Charles VII. Causes of the expulsion of the English from France. Louis XI. and Charles the Bold—the consolidation of the French Kingdom. The Italian policy of Charles VIII. and his successors. The Holy League and the new diplomacy.

Spain.

The growth of Christian Spain. The effects of the struggle with the Moors—Castile—Aragon—Navarre. Ferdinand and Isabella. The union of Castile and Aragon. Expulsion of the Moors and consolidation of the Spanish monarchy. Relations with England. The discovery of America. Portugal—the discovery of a new sea route to India.

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England.

The development of constitutional government in the reigns of Henry III. and Edward I. The consolidation of the English monarchy—Wales—Scotland. Anti-papal and anti-feudal legislation. The Hundred Years War and its effects on the growth of the nation. Constitutional development under Edward III. and Richard II. Social movements in the 14th century. The Black Death and Wat Tyler's rebellion. The Wycliffite movement. Causes of national decline in the reign of Henry VI. Wars of the Roses. The legislation of Richard III. Henry VII. and the strengthening of the monarchy. The Tudor absolutism.

III. Italy and the Renaissance Movement.

Causes of the failure of nationalism in Italy. Political divisions of Italy in the 14th and 15th centuries. Imperial interference in Italy. The growth of the temporal power of the Papacy under Sixtus IV., Innocent VIII., Alexander VI., and Julius II. The Kingdom of the Two Sicilies. The House of Anjou in Naples—The Sicilian Vespers. The House of Aragon in Sicily. Guelphs and Ghibellines in Italy. The Italian cities—Venice and Genoa—Milan under the Viscontis and the Sforzas—Florence under the Medici. Wars of Venice with the Turks. Effects of the Portuguese discoveries. The Italian Renaissance. The Expedition of Charles VIII. into Italy and its results. The influence of Italy on Europe—growth of national feeling. The Renaissance and the Papacy. The Renaissance movement in England and France. Signs of the Reformation movement.

and Paper.

Constitutional History of England, A.D. 1603—1867.

Detailed syllabus.

I. The following topics are to be studied historically:

The Executive: The Crown; the Privy Council; the Cabinet; the Departments of Government.

The Legislature: The House of Lords; The House of Commons, its rights, duties and privileges, the qualifications and disqualifications and election of its members, the Electorate and other external influences.

The relations between the Executive and Legislature.

The Administration of Justice.

Local Government.

Revenue and Taxation.

The Army, Navy and Church.

The Liberty of the Subject. Growth of Religious Liberty, Freedom of the Press.

II. Together with the following select documents (numbered as in Adams and Stephen's "Select Documents of English Constitutional History"):

188, Act against Monopolies; 189, Petition of Right; 204, 5, Grand Remonstrance and the King's reply; 210, Act erecting a High Court of Justice for the trial of Charles I.; 219, Instrument of Government; 222, Act abolishing relics of Feudalism and fixing an Excise; 223, Corporation Act; 224, First Act of Uniformity; 225, Conventicle Act; 226, Five Mile Act; 228, Test Act; 231, Habeas Corpus Act; 238, Toleration Act; 239, Bill of Rights; 243, Act of Settlement; 244, Act of Union with Scotland; 247, Septennial Act; 251, 2, 3, Decisions on General Warrants and in Sommersett's case; 258, Union with Ireland; 261, Repeal of Corporation and Test Acts; 262, Catholic Emancipation Act; 263, Reform Act, 1832; 264, Abolition of Negro Slavery, 1833.

Note.—These documents are to be studied historically.

Honours Examination.

First Paper.

The subjects of the Pass Examination treated more fully.

For the Honours examination candidates will be expected to have a more detailed knowledge of the subjects mentioned in Part I. of the Pass syllabus for English Constitutional History, and in addition will be required to have read all the select documents in "Adams and Stephen." They will also be expected to have a fuller knowledge of the subjects mentioned in the syllabus for European History than the Pass students.

NOTE BY CHAIRMAN OF SUB-COMMITTEE.

(Professor J. Edgar)

Enclosed is the report of the sub-committee appointed to draw up detailed syllabuses for the new History scheme now before the Council.

The Committee wish it to be understood that they do not approve of drawing up detailed syllabuses beyond the stage of the Intermediate Examination as being (a) contrary to the practice of other Universities (b) likely to hamper the teacher and the student rather than to help them; but out of deference to the wishes of the Council they have drawn up the enclosed syllabuses to show the general scope of the examination. The Committee does not consider it possible or desirable to draw up an adequate detailed syllabus for the Political History of England from 1603.

4. The Committee has considered the proposal to add Kafir to the list of subjects for the Intermediate Examination but does not recommend that it be adopted.

The items were considered seriatim, and the following decisions were recorded:

1. A. }
B. } These were adopted.
C. }
D. }
2. This was referred to the Special Committee on the B.A. Honours Examination.
3. A. This was adopted.

BI(a) This was adopted, and the questions (1) of the allocation of marks in the Matriculation Examination for 1909 and (2) of the selection of the prescribed works for 1910 were referred to the following Committee for consideration and report:

Professor Logeman

Professor Morris

Professor Viljoen.

3. B I (b). This was adopted in the following form:

That in and after 1910 questions in the Dutch papers shall be set in both English and Dutch and the answers may be given in either English or Dutch.

3. B II. This was adopted.

3 C I This was adopted, with the addition of the words "and Kafir, Seuto and Sechuana" after the word "German".

3. C II This was adopted in the following form:

That at the B.A. Examination translations, if any, from French and German into English should be from unseen passages, but that the examiner may set short passages from the prescribed authors if he considers this the best way of testing the candidates' knowledge of special points.

3 D. This was adopted, with the omission of the words "and (k)" after "s(f)", and the addition of "(k)" after "(j)" in the last line.

- 3 E. This was adopted.

4. This was adopted.

The following Report of the Science Committee was submitted:

Report of the Science Committee.

(Submitted 21 Aug: 1908).

1. The Committee recommends the adoption of the following additional and amended syllabuses to take effect in 1909 except where otherwise stated:

A. SCHOOL HIGHER EXAMINATION.

- (1) Arithmetic.*

That cube root be deleted from the syllabus in arithmetic: that the mensuration of the triangle be restricted to work on the result, area = $\frac{1}{2}$ base x altitude, and that the word "commercial" be inserted before discount.

(2) Elementary Physical Science. *

The British and Metric Systems of measurement. Derivation and interrelation of metric units, and simple problems thereon.
Measurement of length and ratio. Measurement of areas of square, rectangle, parallelogram, circle, ellipse.

Measurement of Volumes of Cube, Rectangular block, Sphere, Cylinder.
Construction of the simple balance. Measurement of Mass.

Definition and measurement of specific gravity of solids and liquids by simple methods.

Units of time. Measurement by sundial and pendulum.

Force. Simple illustrations of its meaning. Measurement by spring balance.
Simple Machines—the Lever, Balance, Capstan, etc.

Heat and Temperature. The Thermometer, its use and construction.

Determination of points of reference. The Fahrenheit and Centigrade Scales and their conversion.

Effects of Heat. Measurement of Heat. Determination of Specific and Latent Heats.

Chemical action. Combustion. Flame. Burning of coal or wood. Preparation of Carbon dioxide from marble. Manufacture of lime. Oxides. Oxidation.

Water. Forms of natural water. Purification by lime and by distillation.
Solubility of solids, liquids, and gases in water.

Electrolysis of water. Preparation and properties of hydrogen and oxygen.

Air. Its composition. Rusting.

(No candidate can take Physics or Chemistry along with Elementary Physical Science.)

(3) Botany.*

An elementary knowledge of:

The form and structure of familiar seeds, *e.g.*, Broad Bean, Castor Oil, Mealie, Mustard, Sunflower. Typical methods of germination. Endospermous and exalbuminous seeds. Conditions necessary for germination.

Familiar forms of roots and the more common modifications. Root-hairs, Root-cap. The important functions of roots, particularly the absorption of food-material from the soil. Branching of the root.

Principal modifications of stems; erect, climbing and horizontal; herbaceous and woody; underground. Buds. Distribution of the tissues in the stem of the Mealie, Sunflower and Oak. Annual rings. Important functions of the stem and its tissues. Branching.

Principal forms, composition and modifications of leaves; insertion and venation. Distribution of the tissues of a typical leaf. Stomata. Important functions of the leaf and its tissues; transpiration, assimilation, respiration. Adaptations to withstand drought and excessive sunlight.

Simple types of inflorescences. The parts of the flower and their functions. Nectaries. Cohesion and Adhesion. Regular and irregular flowers. Pollination by insects and wind. The facts of germination of the pollen grain, and of fertilisation.

The following familiar forms of fruit: Achene, nut, capsule, follicle, legume, drupe, berry. Methods of distribution of fruits and seeds.

Elementary principles of the classification of flowering plants.

A general knowledge of the following types as illustrating the orders to which they belong:

Asparagus, Ornithogalum (or Eucomis), Aloe; Hypoxis, Haemanthus; Moraea, Gladiolus; either Protea and Leucadendron, or Pirus, Prunus, and Rosa; Brassica; either Erica or Salvia; Helianthus, Senecio; Crassula, Cotyledon (or Kalanchoe); Pisum, Crotalaria.

(The alternatives are to allow for variations in the flora.)

Formation of Herbaria: Collecting, Drying, Poisoning, and Mounting. Habit and duration of plants. Vegetative reproduction.

N.B.—The study of this subject should be based as far as possible on the observation of living plants. The use of a hand-lens, accompanied by staining, will bring out as much anatomy as is required. Microscopic structure is not expected.

B. MATRICULATION EXAMINATION.

(1) ARITHMETIC.

Simple questions in the theory of, and exercises,

and problems on:—

The Decimal System of Notation, and the simple rules.

Prime and composite numbers.

Rules of divisibility by powers of 2 or 5, and by 3, 9 or 11.

H.C.F. by factors or alternate division, L.C.M.

Vulgar and decimal fractions, excluding complicated vulgar fraction, and questions relating to the number of figures in the period of a recurring decimal.

Ratio and proportion between commensurable quantities. Proportional parts.

Square Root.

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Report Science
Comm. Expt.

Money, time and weights and measures in common use.

The Metric System.

Mensuration of rectangular surfaces and solids, the triangle and parallelogram, circle, right prism, right circular cylinder.

Percentages.

Simple Interest, including the finding of principal (or true present value).

Discounting of bills (commercial discount),

Compound Interest, including decimal calculation to nearest penny.
Profit and loss.

Stocks.

Errors and degree of approximation, including the connection between linear, superficial and volumetric relative errors.

Approximative methods of multiplication and division and of extraction of square root.

(2) ELEMENTARY NATURAL SCIENCE. BOTANY.

N.B. The study of this subject should be based as far as possible on the observation of living plants. The use of a hand-lens, accompanied by staining, will bring out as much anatomy as is required. Microscopic structure is not expected.

An elementary knowledge of:

The structure and germination of familiar seeds, e.g. Broad Bean, Pea, Sunflower, Pine, Onion. Conditions necessary for germination.

Familiar forms, common modifications and structure of roots. Adventitious roots. Branching. Root-cap. Root-hairs.

Principal forms, modifications and structure of Stems. Buds. Cork. Lenticels. Branching.

Insertion, venation and general structure of leaves. Principal forms of the leaf and its parts.

Principal forms of racemose and cymose inflorescences. The parts of the flower and their functions. Floral diagrams. Regular and irregular flowers. Cohesion and Adhesion. Principal forms of fruits. Methods of distribution of fruits and seeds.

Pollination by wind, insects, and birds. The main facts of fertilisation and the resulting changes. Important types of floral structure and mechanism which favour cross-fertilisation. Self-fertilisation.

Absorption of food-materials from the soil: transpiration; assimilation; storage of reserve material. Respiration. Parasites, Saprophytes. Insectivorous plants. Elongation of root and stem. Direction of growth as influenced by light and gravitation. Adaptations to environment. Functions of the principal organs and their tissues.

Habit of plants. Annuals, Biennials, Perennials. Vegetative reproduction.

Elementary principles of the classification of flowering plants. A general knowledge of the following types as illustrating the orders to which they belong: Brassica; Oxalis, Pelargonium (or Geranium); Pisum, Acacia; either Protea or Ficus; Crassula, Cotyledon (or Kalanchoe); either Erica or Salvia; Mesembrianthemum; Helianthus; Moraea, Gladiolus; Ornithogalum (or Fucois), Aloe.

(The alternatives are to allow for variations in the flora.)

Herbaria: Collecting, Drying, Poisoning and Mounting.

ZOOLOGY.

Frog. External characters; skeleton; general structure and functions of the internal organs; development so far as can be seen by pocket lens.

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Locust. External characters and life history.

General characters of the following:-

- (a) Mammals with special reference to sheep, cat, rabbit;
 (b) Birds with special reference to pigeon, fowl;
 (c) Reptiles with special reference to lizard, snake, tortoise;
 (d) Amphibia;
 (e) Fishes;
 (f) Mollusca with special reference to the snail;
 (g) Insects and spiders with special reference to Beetles, butterflies, ticks;
 (h) Protozoa with special reference to the malaria fever parasite.

(3) BOTANY.

N.B. The study of this subject should be based entirely on observation and experiment; and should be confined to plants native of or cultivated in South Africa.

An elementary knowledge of:

The structure and germination of familiar seeds, e.g. Broad Bean, Castor Oil, Mealie, Mustard, Sunflower, Pine, Pumpkin, Onion, Date. Conditions necessary for germination.

Familiar forms and common modifications of roots. Adventitious roots. Branching. Root-cap. Root-hairs. Distribution of the tissues and elementary microscopic structure of the root of the mealie and sunflower. (A knowledge of secondary thickening of roots is not expected.)

Principal forms and modifications of Stems. Buds. Distribution of the tissues and elementary microscopic structure of the Stem of the Mealie, Sunflower and Oak; including secondary thickening. Annual Rings. Cork. Lenticels. Branching.

Insertion, venation and vernation of leaves. Principal forms, composition and modifications of the leaf and its parts. Dorsiventral, isobilateral and concentric leaves. Distribution of the tissues and elementary microscopic structure of the Privet leaf. Stomata.

Principal forms of racemose and cymose inflorescences. The parts of the flower and their functions. Aestivation, Floral diagrams. Regular and irregular flowers. Cohesion and Adhesion. Principal forms of fruits. Methods of distribution of fruits and seeds.

Pollination by wind, insects, and birds. Pollen grains and their germination. Elementary microscopic structure of the ovule; and the main facts of fertilisation and the resulting changes. Diclinism, dichogamy, pollen-protency, heterostylism, and important types of floral structure and mechanism which favour cross-fertilisation. Self-fertilisation.

Absorption of food-materials from the soil; Transpiration; assimilation; storage of reserve material. Respiration. Parasites, Saprophytes. Insectivorous plants. Elongation of root and stem; Direction of growth as influenced by light and gravitation. Adaptations to environment. Functions of the various organs and their tissues.

Elementary principles of the classification of flowering plants.

A general knowledge of the following types as illustrating the orders to which they belong: Brassica, Lepidium; Hibiscus, Abutilon; Oxalis, Pelargonium (or Geranium); Pisum, Crotalaria, Indigofera, Acacia; either Protea, Leucodendron, and Leucospermum, or Pirus, Prunus, and Rosa; Grassula, Gotyledon (or Kalanchoe); Mesembrianthemum; Helianthus, Senecio, Sonchus, Osteospermum (or Euryops); either Erica or Salvia; either Datura and Solanum or Disa and Satyrium; Artibeoselon (or Struthiola); Moraea, Gladiolus; Hypoxis, Haemanthus; Asparagus, Ornithogalum (or Eucomis), Aloe.

(The alternatives are to allow for variations in the flora.)

Herbaria: Collecting, Drying, Poisoning and Mounting.

Habit and duration of plants. Vegetative reproduction.

G. E.A. PASS AND HONOURS EXAMINATION.

(1) Chemistry.* 1910.

B. A. PASS EXAMINATION.

Written Examination.

This examination will consist of two papers, each of three hours' duration. The first will consist of questions relating chiefly to inorganic chemistry, and the second of questions relating chiefly to organic chemistry.

The Principles of Chemistry, including the following:—

General methods of determining atomic and molecular weights. Choice of a standard for atomic weights. Use of the polarimeter. The periodic system of classification. Elementary notions of the kinetic theory. Deviations from the simple laws of gases. Liquefaction of gases. The phase rule and its simple applications. Properties of solutions. Osmotic pressure and Van 't Hoff's deductions for dilute solutions. Vapour pressure, freezing and boiling points of dilute solutions. The elements of thermal chemistry and photo-chemistry. Electrolytic dissociation. Velocity of ions. Molecular conductivity. Explanations of chemical change by the ionic theory; active mass, velocity of chemical action, balanced actions, solubility product. Spectrum analysis. Emission and absorption spectra. The crystallographic systems. Holohedral and hemihedral crystals. Dimorphism and isomorphism. Stereo-isomerism.

Inorganic Chemistry.

(a) The subjects given in the syllabus of the Intermediate Examination will be treated more fully, and in addition the following:—Argon, helium. Hydroxylamine, hydrazine. Oxides and oxyacids of chlorine, bromine, and iodine, and their salts. Nitrogen chloride and iodide. Hydrogen persulphide, sulphuryl chloride, sodium thiosulphate. Selenium and tellurium, their oxyacids and their principal compounds with hydrogen and oxygen. Carbonyl chloride, carbonyl sulphide, hydrocyanic acid and its derivatives simple and complex. Boron and its oxide, nitride, fluoride and chloride. Boric and fluoboric acids. Silicon and its hydride and chloride. Hydrofluosilicic acid. Silicates, glass, enamels, porcelain, carborundum. Compounds of phosphorus with hydrogen, chlorine, and iodine.

(b) Common oxides, hydroxides, nitrides, carbides, halides, oxychlorides and oxyacids of the common elements and preparation of potassium, sodium, magnesium, calcium, zinc, manganese, chromium, iron, aluminium, cobalt, nickel, silver, copper, lead, cadmium, mercury, arsenic, antimony, bismuth, tin, gold, and platinum.

(c) The outlines of the technical preparation of the following:—Soda, lime, bleaching powder, alum, portland cement, mortar, carbon dioxide, coal gas and ammonia, water gas, producer gas, white lead, nitrates from air, nitric acid, phosphorus and matches, arsenious oxide, oxygen, sulphur dioxide, sulphuric acid, chlorine, hydrochloric acid, bromine, iodine.

(d) The principles of chemical analysis involved in the syllabus of the practical examination.

Organic Chemistry.

Distinction between organic and inorganic chemistry; peculiarities of carbon compounds: saturated and unsaturated compounds; homologous series; compound radicals. Purification of organic compounds; melting-point and boiling-point determinations; crystallisation and fractional distillation; qualitative detection of carbon, nitrogen, hydrogen, sulphur, phosphorus, and the halogens; quantitative analysis of organic compounds; determination of the molecular weight of organic compounds. Empirical, molecular, rational and graphic formulae; isomerism, metamerism and polymerism. Classification of carbon compounds; distinction between aliphatic and aromatic compounds. General properties, general modes of formation and constitution of the following series of compounds with special reference to those compounds mentioned under each series.

Aliphatic Compounds:

Hydrocarbons. (a) Paraffins: methane, ethane, propane, butane, pentane, hexane, petroleum and paraffin industry, solid paraffins. (b) Olefines: ethylene. (c) Acetylenes: acetylene.

Halogen Derivatives of the above hydrocarbons.

Alcohols (Monohydric, Saturated) methyl, ethyl; vinous fermentation; alcoholometry; determination of ethyl alcohol in wines and beers; propyl, butyl, amyl alcohols, fusel oil.

Alcohols (Monohydric, Unsaturated), allyl alcohol.

Ethers: Di-methyl, di-ethyl, mixed.

Thio-Alcohols and Thio-Ethers: mercaptan; ethyl sulphide.

Esters of alcohols with nitric acid, nitrous acid (true esters and isomeric nitro-derivatives), sulphuric acid, derivatives with hydrocyanic acid (nitriles and iso-nitriles).

Amines.

Organo-Metallic Compounds. Zinc methyl, zinc ethyl.

Aldehydes and Ketones: formaldehyde, acetaldehyde, paraldehyde, metaldehyde, choral; acrolein; acetone.

Fatty Acids: formic, acetic; acetous fermentation; propionic, butyric, valeric, palmitic, stearic acids. Fats and oils.

Unsaturated Fatty Acids: acrylic, oleic acids.

Acid Chlorides, Anhydrides, Thio-Acids Amides.

Polyhydric Alcohols: Glycol, glycerine, (nitroglycerine), erythrol, arabite, mannite.

Carbohydrates. Glucose, fructose, cane sugar, maltose, cellulose, (gun cotton), starch.

Oxidation Products of the Polyhydric Alcohols.

Hydroxy-Acids: glycollic acid, glycoic acid, lactic acids, (Le Bel and Van 't Hoff's theory; asymmetric carbon atom;) lactic fermentation.

Dibasic Acids: oxalic, malonic, succinic acids.

Unsaturated Dibasic Acids: Maleic and fumaric acids.

Hydroxy-Dibasic Acids: malic and tartaric acids and their isomerism.

Tri-Basic Acids: citric acid.

Cyanogen Compounds: cyanogen and hydrocyanic acid, cyanides, ferro- and ferri-cyanides, cyanogen chloride, cyanic acid and cyanuric acid, thiocyanic acid and derivatives.

Carbonic Acid Derivatives. Esters of carbonic acid, chlorides (phosgene), amides (carbamic acid), urea, thio-derivatives (carbonyl sulphide).

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Aromatic Compounds:

Hydrocarbons: Benzene, toluene, xylenes, mesitylene.
Halogen Substitution Products: Chloro-benzenes, chloro-toluenes, benzyl-chloride, benzal chloride.
Nitro-Derivatives: nitrobenzene, meta-dinitrobenzene, nitro-toluenes.
Amido-Derivatives: aniline, diphenylamine, toluidines, benzylamine.
 The diazo reaction and its simple applications.
Sulphonic Acids: benzenesulphonic acid, sulphanic acid.
Phenols: phenol, trinitro-phenol, homologues of phenol.
Alcohols and Aldehydes: Benzyl alcohol, benzaldehyde.
Acids and Derivatives: benzoic acid, benzoyl chloride, hippuric, amido-benzoic and cinnamic acids.
Naphthalene and Derivatives: naphthalene, naphthylamines, naphthols.
Anthracene Derivatives: anthracene, anthraquinone, alizarine.

History of Chemistry.

From Robert Boyle to the present day, including: phlogiston theory (Stahl); antiphlogiston theory (Lavoisier); atomic theory (Dalton) and its development (Berzelius); theory of types and radicals; theory of Van 't Hoff and Le Bel.

Practical Examination. (Three days).

- Qualitative Analysis* of mixtures of salts soluble in water or acids containing not more than six ions when in solution of those given in the Intermediate syllabus, including separation of two cations of the same group.
 Detection of carbon, hydrogen, nitrogen, sulphur, phosphorus, chlorine in organic substances.
 - Inorganic Preparations.*—Preparation of a pure substance from the elements of one of its compounds.
 - Organic Preparations.*—Preparation of one simple organic substance such as, chloroform, iodoform, ethyl iodide, ethyl acetate, ethyl ether, ethylene bromide, aldehyde ammonia, glycol, formic acid, allyl alcohol, nitro-cellulose, nitrobenzene, aniline, oxalic acid, acetanilide, etc.
 - Gravimetric Analysis.*—Determination of one of the following:—Water, magnesium, calcium, barium, aluminium, iron, lead, copper, tin, silver, hydrochloric acid, carbonic acid, phosphoric acid, sulphuric acid in a simple salt mixed with some indifferent substance.
 - Volumetric Analysis:*
 Determination of common acids and alkalis.
 Determination of ferrous and ferric iron, oxalic acid, hydrogen peroxide by use of potassium permanganate or bichromate of potassium solutions
 Determination of iodine, chlorine, manganese peroxide by use of sodium thiosulphate solution.
 Determination of chlorides, cyanides, silver by precipitation methods.
 - Determination of the melting point, boiling point, density, transition point of a given substance, or other simple physical constants.
- NOTE.—Text books and note books on Analysis may be used by the student during the examination.

B. A. HONOURS.*Written Examination.*

Candidates will be expected to have a fuller and more extended knowledge of those subjects which are common to the syllabuses of the B.A. Pass and B.A. Honours Examinations than is required in the B.A. Pass Examination.

The Principles of Chemistry, including the following:—General methods of determining atomic and molecular weights. Choice of a standard for atomic weights. Atomic and molecular volume. Specific rotary power. Use of the polarimeter. Molecular refractive power. The periodic system of classification. Elementary notions of the kinetic theory. Diffusion, effusion, transpiration, atomolysis and occlusion of gases. Deviations from the simple laws of gases. Liquefaction of gases. Critical conditions of gases. The phase rule and its simple applications. Alloys. Properties of solutions. Osmotic pressure and Van 't Hoff's deductions for dilute solutions. Vapour pressure, freezing and boiling points of dilute solutions. The elements of thermal chemistry and photo-chemistry. The constitution of electrolytes. Electrolytic dissociation. Conductivity. Theory of chemical equilibrium. Velocity of chemical action. Chemical affinity. Relative affinities of acids and bases. Dissociation constants. Spectrum analysis. Emission and absorption spectra. The crystallographic systems. **Holo-**hedral and hemihedral crystals. Dimorphism and isomorphism. Stereoisomerism.

Inorganic Chemistry.

Candidates will be expected to have studied the subjects enumerated in the B.A. Pass syllabus more fully, and in addition the following: hydrazoic acid; thionic acids; hypophosphorous, hyposulphurous and persulphuric acids and their salts. Analysis of silicates. The chemistry of the principal compounds of lithium, rubidium, caesium, thallium, titanium, cerium, thorium, vanadium, tantalum, molybdenum, tungsten, uranium, rhodium, ruthenium, palladium, osmium, iridium and radium.

Organic Chemistry.

The principles of the analysis of organic compounds. Methods of purification. Determination of molecular weights. Polymerism and isomerism. Homology. Classification. Stereoisomerism. The constitution, general methods of preparation, general properties and chemical relations of the following classes of compounds with special references to the substances mentioned, which should be studied in detail. Methods for the conversion of members of one series into members of another series.

Aliphatic Compounds:

Hydrocarbons: Methane, ethane, propane, butane, pentane; ethylene, propylene; acetylene, allylene; diacetylene.

Halogen Derivatives of methane, ethane; ethylene, acetylene.

Alcohols: Methyl, ethyl, propyl, butyl, amyl; vinyl, allyl. The mercaptans. The glycols and their simple derivatives. Glycerin and its nitrite and chlorhydrins.

Ethers: Methyl, ethyl. Mixed ethers.

Aldehydes: Formic, acetic; chloral; acrylic, crotonic. Aldoxim, acetal.

Ketones: Acetone, methyl-ethyl—Ketoxim.

Acids: Formic, acetic, propionic, butyric, valeric, palmitic, stearic; acrylic, crotonic, oleic. Glycollic, lactic, gly-oxalic, aceto-acetic. Citric. Oxalic, malonic, succinic, malic, tartaric. Fumaric, maleic. Saccharic, mucic.

Acid Derivatives:

- (a) Esters with inorganic and organic acids.
- (b) Acid anhydrides—acetic anhydride.
- (c) Acid chlorides—acetyl chloride.
- (d) Acid amides—acetamide.

Nitrogen Derivatives:

Cyanogen, hydrocyanic acid, cyanides and isocyanides. Amines. Cyanogen chloride, cyanic and thiocyanic acids, cyanamide, urea, thio-urea, uric acid, xanthin, theobromin, caffeine, alloxan.

Carbohydrates.

General characteristics of aldoses and ketoses. General relations and properties of the hexoses—fructose, glucose, mannose, galactose, talose. The bioses—sucrose, lactose, maltose, raffinose. Glucosides—amygdalin, salicin.

Organo-Metallic Compounds.

Zinc methyl, zinc ethyl, Grignard's compounds.

Aromatic Compounds:

A. Homocyclic Compounds.

Hydrocarbons: Trimethylene, benzene, toluene, the xylenes, the trimethyl benzenes.

Halogen Derivatives: The commonest representatives.

Nitrogen Derivatives: The mono, di, tri-nitro compounds of benzene.

Aniline and its substitution products, anilides. Toluidines, diphenylamine. The simpler diazo—and azo—compounds. Phenyl and phenyl-methyl hydrazines.

Sulphonic Acids: Benzene sulphonic. Diazo-benzene sulphonic.

Phenols: Phenol, cresol; catechol, resorcinol, quinol, pyrogallol, hydroxyquinol, phloroglucinol, tribromophenol, picric acid.

Alcohol Aldehydes and Ketones: Benzyl, benzaldehyde, salicyl aldehyde; acetophenone, benzophenone.

Quinones: Parabenzoquinone.

Acids: Benzoic, salicylic, cinnamic and their esters. The simple chloro-, sulfo-, nitro-, amino-, methyl-, diazo derivatives.

Phthalic acids, hydrophthalic acids.

Diphenyl, Naphthalene, and Anthracene and their simpler derivatives.

B. Heterocyclic Compounds:

Furane, thiophene, pyrrol, indole, indoxyl, oxindoles, isatin, indigo.

Pyridin and its carboxylic acids.

Quinoline and isoquinoline. The alkaloids; coneine, nicotine, morphine, quinine, strychnine,—their occurrence, methods of preparation and characteristic tests.

Terpenes—Pinene, camphene, camphane, Bornic Camphor.

History of Chemistry.

Candidates will be expected to be conversant with the History of Chemistry from the time of Robert Boyle to the present day, with special reference to the work of the following Chemists:—Becher and Stahl, Lavoisier, Priestly, Scheele, Dalton, Gay-Lussac, Davy, Faraday, Berthollet, Berzelius, Wöhler Liebig, Stas, Laurent and Gerhard, Kékulé, Mendelejeff, Kopp, Pasteur, Kolbe, Williamson, Berthelot, Arrhenius, Ostwald, Van 't Hoff, Emil Fischer, Ramsay, Baquerel, Curie.

Practical Examination (Two days).

Candidates will be examined in the following:—

- I. (a) Complete gravimetric analysis of a simple salt, the qualitative composition being given.
- (b) A more difficult volumetric estimation involving the principles of volumetric analysis as given in the pass syllabus.
- (c) The elements of gas analysis.
- II. (a) Determination of molecular weight of an organic compound by physical or chemical methods.
- (b) Determination of carbon or hydrogen or nitrogen of an organic substance.

Two questions will be set from Group I. and one from Group II. Special stress is laid upon the care taken in manipulation and the accuracy of the results obtained.

Essay Paper.

Six subjects for essays on the Pass and Honours Syllabuses will be given in this paper, and candidates will be required to confine themselves to two of these.

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(2) GEOLOGY. (Honours-Amended Scheme)
Section C. Second Paper: As for 1908.

(3) BOTANY. Pass Examination.

(A) Written Examination.

(1) Delete.

(2) Omit all the words from "withasterisk."

Schizophyta: Add Oscillatoria; Bacillus subtilis.

Diatomaceae: Insert Navicula.

Algae: Omit Cosmarium, Mesocarpus, Botrydium, Ecklonia, Lessonia, Callithamnion.

Omit * from Volvox.

Add Coleochaete, Polysiphonia*.

Add * to Ulothrix.

Fungi: Omit Peronospora, Botrytis.

Omit * from Claviceps.

Lichens:

the names in each group to be arranged in alphabetical order and not according to a particular scheme of classification.

(3) Read "structure, division and contents of the plant-cell" instead of "structure and division of the plant-cell".

(5) Omit Proteaceae.

(B) Practical Examination.

(1) Omit all the words following the words "Section 8."

Honours Examination.

(A) Written Examination.

(b) Omit all the words after "types specified".

Schizophyta: Change Oscillaria* to Oscillatoria*.
Omit Chroococcus.

Algae: Omit Chlamydomonas (added to Passylibus and Lemanea, Gelidium and "(or Eudorina)" Ulva* (entirely).

Omit * from Pandorina, Ecklonia,

Add Cosmarium, Botrydium, Splachnidium.

Add * to Enteromorpha, Coleochaete.

Fungi: Omit Thelebolus, Armillaria, Proto-mycetes.

Omit * from Empusa, Eurotium.

Add Peronospora; Plasmopara*, Crucibulum.

Add * to Nectria, Coprinus;

the names in each group to be arranged in alphabetical order, and not according to a particular scheme of classification.

Eucyphyta: Omit Ricciocarpus, Fimbriaria, Notothylas, Fontinalis.

Pteridophyta: Omit Kaulfussia, Banaea, Mesopteris.

Omit * from Psilotum.

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Report of Science
Comm. (cont'd).(B) Practical Examination.

Insert new paragraph between (a) and (b) -

"Anatomy of important types of the Spermaphyta."

After (b) add new paragraph,

"Determination of the Natural Orders of specimens selected from typical South African groups."

D. M.A. EXAMINATION.

PHYSICS.

That the following note be added to the syllabus in Physics on page 176 of the Calendar (1908-9): Sections 6, 7, 8 of the B.A. Honours Syllabus in Pure Mathematics and Section 2 of the B.A. Honours Syllabus in Applied Mathematics (with the elements of Vector Analysis) may be taken as indicating the range of the examination under (a).

E. LAND SURVEYING, PART I.

PLANE TRIGONOMETRY. (See p. 186 Calendar 1908-9).
AND MENSURATION.

- (a) That to "Angles with given trigonometrical ratios" there be added the words "and solutions of easy trigonometrical equations",
- (b) to "The trigonometrical ratios of the sum and difference of angles" there be added the words, "and results immediately deducible from these".

2. SYLLABUSES IN MATHEMATICS AND PHYSICS.

In view of the proposed alterations in the syllabuses for Mathematics and Physics for the Intermediate Examination (see Report of Special Committee separately submitted to the Council) the Committee submits the following further recommendations in regard to the syllabuses in these subjects for the examinations indicated:-

- (1) First Mining Examination. That in and after 1910 the syllabus for this examination be the same as for the Intermediate Examination.
- (2) Intermediate Examination and First Mining Examination. That in and after 1910 there be two papers in Mathematics and that two co-examiners be appointed to draw up the two papers.
- (3) First Mining Examination. That in and after 1910 the marks allotted to Mathematics be 450, each paper to receive 225, and that the minimum percentages be unaltered.
- (4) Second Mining Examination. That in and after 1911 in the syllabus of Mathematics for this Examination, the subject "Trigonometry" be headed "Trigonometry and Mensuration" and that there be added to it, "The measurement of the surfaces and cubic contents of the prism, parallelepiped, pyramid, cylinder, cone of revolution, sphere."
- (5) E.A. (Science) Pass Examination. That in and after 1912 in the syllabus of Mathematics for this examination under the heading "Pure Geometry", there be inserted, "Ratio and proportion for incommensurables." That the marks allotted to the separate papers be unaltered.

(N.B. The Sub-Committee to report on the Physics Syllabus has not yet completed its report.)

3. E.A. HONOURS CHEMISTRY.

The Committee recommends that two papers of three hours each and one essay paper of three hours should be given in the E.A. Honours Examination in Chemistry in order to enable candidates to do themselves justice in the work which they have prepared for examination in this subject.

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4. B.A. APPLIED MATHEMATICS.

The Committee recommends that in and after 1909 there be two separate minima in this subject, viz. 135 for written papers and 40 for practical examination.

5. II & III MINING EXAMINATIONS (New Regulations.)

The Committee recommends that in and after 1909 the work for Engineering Design and Drawing Part I in the II Mining Examination be confined to questions on machine construction only and that a paper on design be inserted in the III Mining Examination.

6. II MINING EXAMINATION: EXHIBITION.

With reference to the following resolution of the Council, viz. "That in view of the small number of candidates competing for the Second Mining Examination the Exhibition be not awarded unless the candidate has obtained a certain percentage of the possible marks and that the percentage be fixed by the Science Committee." the Committee recommends that the percentage required be fixed at 60 per cent.

7. M.A. PHYSICAL CHEMISTRY.

The Committee has considered the advisability of indicating the range of the M.A. Examination in Physical Chemistry for candidates taking it as a primary or secondary subject and reports that M.A. candidates taking Chemistry Groups (2) or (3) (see p. 176 Calendar 1908 - 9) will follow the syllabus for B.A. Honours in Physical Chemistry. A thorough knowledge is expected but the questions set will not involve difficulties which are mathematical rather than chemical.

8. RULES OF PROCEDURE.

The Committee reports that it has adopted the following rules of procedure:*

- (1) The first act of each meeting, after being constituted, shall be to confirm, by the signature of the Chairman, the minutes of the meeting immediately preceding. All objections to the form and manner in which the minutes have been taken must then be raised and decided, unless a member shall be allowed, by special permission, to give notice of further discussion at the next meeting.
- (2) All questions coming before the Committee shall be decided by the majority of the votes of the members then present. On every question the Chairman shall have a vote, and in the case of the votes being equal, the question shall be decided by the casting vote of the Chairman.
- (3) Not less than three weeks before the day appointed for any meeting, the Registrar shall give notice by circular to each member of the Committee of the subjects to be brought under consideration at the meeting; and the opinion of members unable to attend personally, if given in writing, shall be laid before the meeting.
- (4) Notices of subjects for consideration shall be in writing and must be lodged with the Registrar three days at least before that on which he is required to give notice of meeting: provided that any question may be brought before the Committee as a matter of urgency without previous notice if the meeting shall unanimously decide that such question shall be so considered.
- (5) Every motion shall be in writing, but shall not require to be seconded. No motion can be withdrawn except by permission of the Committee.
- (6) The ruling of the Chairman on any question of order or procedure shall be binding, unless immediately challenged by a member; in which case it shall be submitted at once to the Committee, whose decision shall be final.

9. The Committee respectfully submits that the room allotted for its meetings and for the meetings of the Joint Literature and Science Committee is very unsuitable.

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Report of Science
Comm. (Contd.).The items were considered seriatim, and the following decisions were recorded:

1. A. }
 B. }
 C. } These were adopted.
 D. }
 E. }

2. (1) }
 (2) }
 (3) } These were adopted.
 (4) }
 (5) }

3. This was referred to the Special Committee on the B.A. Honours Examination for consideration in connection with other Sciences.

4. This was adopted.
 5. This was adopted.
 6. This was adopted.
 7. This was adopted.
 8. This was adopted.
 9. This had already been dealt with in connection with the Registrar's

Memorandum.

Report of Finance
Comm.The following Report of the Finance Committee was submitted:

REPORT OF THE FINANCE COMMITTEE.

(Submitted 21st August, 1908)

1. Appointment of additional member.

The Committee recommends that the number of its members be increased by the appointment of an additional member and suggests the name of Dr. Gregory.

2. Travelling and Maintenance Expenses
of Members of Council, etc.

The Committee has reconsidered the draft Regulations for the payment of the travelling and maintenance expenses of Cape Members of the University Council and of Assessors and Examiners submitted to the Council at its last meeting, in accordance with the Council's instructions that provision be made therein for payment of out of pocket expenses only, and recommends that the following regulations be adopted as from 1st September, 1908.

- (a) That members residing within a radius of 25 miles from the University be entitled to a refund of their actual out of pocket expenses, not exceeding a maximum of 5/- per diem.
- (b) That members residing within a radius of from 25 to 50 miles be entitled to a refund of the sum expended on railway transport and to receive an allowance of 5/- per diem to cover out of pocket expenses; provided that if they are obliged to spend a night away from home an additional allowance of 10/- shall be payable in respect thereof.
- (c) That members residing beyond a radius of 50 miles be entitled to receive an allowance of 15/- per diem to cover all expenses other than transport by rail or sea; provided that the said allowance shall not be payable in respect of any time spent on the sea.

- (d) All claims under any of the above heads must be lodged with the Registrar on the prescribed Forms within 10 days of the date of the meeting to which the member was summoned.

3. Refund of Examination Fees.

With reference to the following Regulations for the refund of examination fees adopted by the Council at its last meeting on the Committee's recommendation and subsequently published in the University Gazette, the Committee learns that numerous applications have been received in terms of Regulation 2 for a refund of music fees (which are under £1).

Regulations approved 15th May, 1908.

1. (a) If a candidate withdraws his name before the day on which entries close, his examination fee shall be returned and his name removed from the list of candidates.
- (b) If a candidate for any examination where the re-registration fee exceeds £1 fails to present himself at the examination, his fee will not be returned to him but he will be entitled to present himself at the next following examination on payment of a fee of £1, provided that the reasons assigned for withdrawal are considered satisfactory by the Vice-Chancellor.
2. In exceptional cases the Vice-Chancellor shall be empowered to grant a refund of any fee if, in the opinion of the Vice-Chancellor's Committee, the circumstances are such as to warrant it.

In order to prevent applications being made for the refund of small fees the Committee recommends that Regulation 2 be expunged in its present form and be added as a proviso to Regulation 1 (b) as follows:

"provided further that in exceptional cases where the circumstances appear to be such as to warrant it, a refund of the full fee may be authorized by the Vice-Chancellor's Committee."

4. Hire of Office to Colonial Medical Council.

The Committee has received an application from the President of the Colonial Medical Council for the hire of a room in the basement of the University Buildings as an office for the Council, and recommends that the application be granted and that a rental of £50 per annum be charged (to include lighting).

5. Deficit on Building Fund.

The Committee reports that the final payments in connection with the new Buildings have now been made and that the total deficit on the Building Fund (after disbursing £1800 for furniture and fittings) amounts to £2,331. 10. 10, which has been temporarily advanced out of the General Fund; as no permanent overdraft on the Council's General Account will be incurred thereby, the Committee recommends that the action taken be approved by the Council.

6. Sale of University Gazette.

As applications have been received from persons not entitled under the Regulations to gratis copies for permission to subscribe to the University Gazette, the Committee recommends that upon payment in advance of a sum of 2/6 such persons may be supplied with a copy of each issue of the Gazette up to the following 31st December.

7. Commission on Cheques.

In view of the fact that the necessary allowance for commission is not always made when payment of fees is tendered by cheque the Committee recommends that after the present year cheques be not accepted in payment of examination or other fees unless the amount of the commission, if any, be included.

August 1908

Report of Finance
Comm. (cont.)

The items were considered seriatim, and the following decisions were recorded:

1. This was adopted.
2. This was adopted, with the omission of the word 'railway' in line 3 of (b)
3. This was referred back to the Committee for further consideration.
4. This was adopted.
5. This was adopted.
6. This was adopted.
7. This was adopted.

Mr Orrey: 23
exemption from Matric Exam.

D Jenkins moved, pursuant to notice,

"That the application of Mr. A.C.M. Orrey, Intermediate E.Sc. of London University to enter for the Intermediate Examination of the Cape University next December be referred to the Admissions Committee with power to act."

It was resolved that Mr Orrey's application be acceded to, provided his papers were in order.

University Reform 24.
letter from Mr. Fremantle.

The following letter from Mr Fremantle was submitted:

Cape Town.

19th August, 1908.

Dear Mr. Registrar,

As the Council did me the honour of asking me to take charge of the Divinity Degreesbill, perhaps I ought to report formally that the bill has passed both houses of Parliament and received the Governor's assent and been promulgated in the Gazette.

I wish also to draw the attention of the Council to another matter. The question of University reform has occupied the thoughts of the Council and the public for many years. The time appears to have arrived for the Council to determine whether it is prepared to wait until such time as the matter may be dealt with by a federal Parliament or to press for early action under existing circumstances. In order to ventilate the subject I have given notice to move in the House of Assembly next Tuesday "that in the opinion of this House the question of University reform demands the early and earnest attention of the Government." The motion has first place on the paper. I should be glad to know the opinion of the Council on this matter.

(Sgd.) H. E. S. Fremantle.

August 1908

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In reference to the second paragraph of the letter it was resolved that Mr. Fremantle be authorised to state that the University was anxiously awaiting an indication of the action proposed to be taken by the Government in regard to the Report of the recent Inter Colonial Conference on University Education in South Africa.

It was resolved that the B.A. Science Examinations in 1908 should commence on the 3rd December in place of the 7th idem, in order that they might be completed before the Christmas Holidays; and that all candidates for these examinations be notified accordingly at the earliest possible date.

L. Merivale Smith
Vice-Chancellor
6.11.08

Dates of B.A. Science Exams. 1908. 25.

6th and 7th November, 1908.

1. The ordinary Quarterly Meeting of the Council was held on the above dates.

Attendance

2. The following members were present:

The Vice Chancellor (in the chair)

The Pro Vice Chancellor

Professor Beattie

Rev. A.P. Bender

Rev D. Flint

D^r Gregory

* Professor Hahn

D^r Hyslop

Rev. D. Jenkins

Rev. D^r Kolbe

Professor Logeman

Professor Macfadyen

Professor Mackenzie

Professor Martin

Professor Morrison

Professor Notcutt

Professor Ritchie

Rev. J.M. Russell

Mr. Searle

Professor Vliegen

Professor Walker

Mr. Whitten

* Mr. Gunn

The Registrar and Secretary to the Registrar also attended.

Proxies were received in regard to item 296. from the following members:

Mr Adamson, Sir Bisset Berry, D^r Bruce, Professor Marais, Mr Schreiner, Mr.

Slater, Mr Justice Wessels.

Minutes Confirmed

3. The Minutes of the previous Meeting, which had been previously circulated among the members, were taken as read and were confirmed.

Leave of Absence

4. Applications for leave of absence from the Meeting were granted to the following members:

Mr Adamson, Sir Bisset Berry, D^r Bruce, Rev. D^r Macgowan, Mr. Slater, Mr. Tucker,

Mr Justice Wessels.

Miss D.M. Thomson
success at Cambridge.

5. The Vice Chancellor intimated that news had just been received that Miss Dorothy Thomson, Queen Victoria Scholar, had passed in the First Class in Mathematics at the Previous Examinations at Cambridge University, and he conveyed the congratulations of the Council to the Registrar on his daughter's success.

Use of Dutch as
medium at Examinations.

6. A letter was read from the Orange River Colony Teachers' Association forwarding a Resolution expressing regret at the decision of the delegates at the recent University Conference at Cape Town with reference to Dutch as medium at the Cape University Examinations, and requesting the University Council to change their decision, so that the Dutch population in South Africa might obtain their just rights in this matter.

The Registrar reported that he had replied to this letter pointing out that the University Conference was summoned by the High Commissioner and that, although certain members of the University Council were included among the representatives of the Cape Colony there the Council was not officially connected with the Conference in any way.

It was resolved to endorse the above reply.

November 1918

Proposed Bill to admit qualified Agents as Attorneys.

7. A letter was read from the Incorporated Law Society of the Cape of Good Hope, drawing the attention of the Council to the following section of a proposed Bill to admit Enrolled Agents as Attorneys.

4. Notwithstanding anything to the contrary contained in the 19th Section of the University Incorporation Act No. 16 of 1873 or any other Law, it shall be lawful for the Council of the University of the Cape of Good Hope to admit as a candidate for a Certificate of proficiency in Law and Jurisprudence any person who shall produce proof that he was enrolled and admitted to practise as a Law Agent in any Magistrate's Court before the 1st day of July, 1908.

It was resolved to refer the letter to the Law Committee.

Mr Hattingh's application to take Part II of the Exam. abroad.

8. A letter was read from Mr G. Hattingh, who intended to enter as a Candidate for Part II of the M.A. Examination (Modern Languages) in 1909, applying to be allowed to take the examination at Oxford.

It was resolved that the application be not acceded to.

Mr S. Malan - Grant of Honorary Exhib.

9. A letter was read from Mr S. du T. Malan, applying to be allowed to receive the exhibition awarded him at the 1908 Matriculation Examination, which he was temporarily debarred from taking advantage of at the time by reason of financial and domestic difficulties. It was resolved to accede to the request.

Appointments/Auditor

10. Mr E. H. Müller, B.A. was reappointed Auditor of the University Accounts for the year 1908.

Appoint. of Scrutineers

11. Messrs F. H. Long and S. Robertson, M.A. were reappointed Scrutineers for the Examinations of 1908.

Appoint. of Comm. to edit Part II of Examiners Reports.

12. The following members were appointed as the Committee to edit Part II of the Reports of the Examiners on the work of candidates at the School Higher and Matriculation Examinations in 1908:

- D. Flint
- Professor Hahn
- Professor Walker.

Award of Chalmers Memorial Prize

13. The report of the examiners for the Chalmers Memorial Prize, 1908, was read, recommending that the prize be awarded to Mr Leslie Blackwell B.A., LL.B. The report was adopted.

Subject of Chalmers Memorial Prize Essay, 1909.

14. The selection of the subject for the Chalmers Memorial Prize in 1909 was referred to the following Sub-Committee, with power to act:

- Professor Keattie
- Rev. Mr. Bender
- D. Flint
- Professor Ritchie
- Professor Walker.

Applications for Examinerships, 1909

15. The following list of applicants for examinerships for 1909 was submitted and referred to the Examiners Selection Committee for report: -

Applications for
Examinations 1909
(cont.)

LIST OF NEW APPLICANTS FOR EXAMINERSHIPS, 1909.

University Examinations (except Matriculation.)

Literature and Philosophy.

A. Arenhold, B.A., M.D.	German
Dr. J. Brill	History, Latin
W. Cahlin, M.A.	Classics, History
Prof. Cory, M.A.	S.A. History
Rev. W.H. Evans, B.A.	History
R. Fruin, LL.D.	Dutch, French
R.W. Heaton, M.A.	History
Prof. A. S. Kidd, M.A.	Latin, Greek
D.E. McCausland, B.A., LL.B.	English, Latin, Greek
J. McCulla, M.A.	History
C.E.S. Phelan, B.A.	History
Adv. E.G. Rainsford, B.A., LL.B.	Dutch, German
Prof. van Braam	French
A. van Haafter	Latin, English (B.A. & M.A.)
A.D. Wilkinson, M.A.	History, English
J.P. MacLaren, M.A., B.Sc., M.B.	English
K. Hobart Houghton	

Science (including Mining)

L. Blackwell, B.A., LL.B.	Mathematics
Prof. Cory, M.A.	Chemistry
D. F. du Toit, M.A.	Chemistry
Adv. R. Inchbold, B.A., LL.B.	Mathematics (Inter.)
J. S. Jamieson	Chemistry
J. A. Macdonald, M.A., B.Sc.	Mathematics, Physics
E. P. Phillips, M.A.	Botany
G. C. Purvis, B.Sc., M.D.	Zoology
Prof. W. D. Rudge	Applied Mathematics
St. C. O. Sinclair, M.A.	Chemistry
J. Muller, B.A.	Chemistry
Prof. G. Potts	Botany
J. Sutherland, M.A.	Mathematics (Inter.)

Matriculation and School Higher Examinations.

Literature.

Rev. W. L. Clementson	History
R. Dale, M.A.	Latin
Rev. W. H. Evans, B.A.	History
Rev. A. Fogarty	History, Latin (Sch. Higher)
W. H. Gerdener	German
Adv. R. B. Howes	English, Latin, History
J. P. MacLaren, M.A., B.Sc., M.B.	History, English
Prof. G. Robertson, M.A.	Classics
Miss F. Snell, M.A.	English
A. D. Wilkinson, M.A.	English, Latin, History, etc.
J. Stuart	Zulu
Miss T. von Held	German

Science.

Rev. A. Fogarty	Arithmetic, Algebra (Sch. Higher)
S. G. Harvey, B.A.	Physics
Adv. R. B. Howes	Arithmetic
Adv. R. Inchbold, B.A., LL.B.	Mathematics
J. W. Miller, M.A.	Mathematics (Sch. Higher only)
J. Muller, B.A.	Chemistry
E. P. Phillips, M.A.	Botany
Prof. G. Potts	Botany
Prof. W. D. Rudge	Physics
A. D. Wilkinson, M.A.	Arith., Math., Chem., etc.

Law Examinations.

Adv. M. Alexander, M.A., LL.B.
Adv. A. S. Benson, B.A., LL.B.
Adv. L. Blackwell, B.A., LL.B.
Adv. J. E. R. de Villiers, B.A., LL.D.
Adv. J. A. Greer, LL.D.
Adv. E. Inchbold, B.A., LL.B.
Adv. C. J. Ingram, B.A., LL.B.
Adv. F. A. W. Lucas, B.A.
Adv. G. G. Sutton

B. D. Examinations.

Rev. D. D. Stormont, M.A., LL.B., B.D.
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Music Teachers Assoc.
Proposed Representation
on Music Comm.

An application from the Music Teachers' Association of Cape Colony for representation on the Standing Music Committee was referred to the Music Committee for consideration and report.

O.R.C. Bursary
Examinations.

17.

Mr Gunn submitted a request from the O.R.C. Colony Education Department that, owing to the loss in the recent fire at Bloemfontein of the papers written by candidates for the Departmental Bursaries, certain scholars, who had not been registered as candidates for the School Higher or Matriculation Examinations, might, for purposes of the Bursary competitions, be allowed to take the papers set in selected subjects at the examinations in question.

It was resolved to accede to the request.

Proposed B.A. in
Literature & Science Combined.

18.

The following resolutions, adopted at the previous meeting, with reference to the institution of an examination for the degree of B.A. in Literature and Science Combined were brought up for confirmation:

(1) That in addition to the existing regulations the pass degree of B.A. be granted to candidates satisfying the examiners in

- A. Four subjects in the Department of Literature and Philosophy and one subject in the Department of Science, or,
- B. Two subjects in the Department of Literature and Philosophy and two subjects in the Department of Science.

(2) That candidates selecting Course A above shall take:

- I. Latin or Greek
- II. English or Dutch or French or German
- III. History or Logic and Psychology
- IV. One of the following subjects:
 - (1) Mathematics
 - (2) Physics
 - (3) Chemistry
 - (4) Geology
 - (5) Botany
 - (6) Zoology (including Comparative Anatomy)

V. One of the subjects under I., II., or III. not already taken.

(3) That candidates selecting Course B above shall take:

- I. Two of the following subjects (provided that no two subjects be taken from the same group):
 - (1) Latin
 - (2) Greek
 - (3) English or Dutch
 - (4) History or Logic and Psychology.
 - (5) French
 - (6) German
- II. Two of the following subjects (provided that (2) cannot be taken without (1):
 - (1) Mathematics
 - (2) Applied Mathematics
 - (3) Physics
 - (4) Chemistry
 - (5) Geology
 - (6) Botany
 - (7) Zoology (including Comparative Anatomy)

(4) That the syllabuses and papers for the examination be the same as for the existing Pass Examinations in the Departments of Literature and Science respectively.

Before the motion to confirm the resolutions was put to the meeting it was resolved to consider the following motion, of which Professor Ritchie had given notice:

"That the whole of the regulations for the proposed Mixed Degree be referred back to the Joint Committee in Literature and Science for further consideration and report."

The motion was carried with the substitution of the words 'Special Committee on the B.A. Honours

Examination' for the words 'Joint ... Science', and the deletion of the word 'further'.

It was further resolved to refer to the B.A. Honours Committee the following motion of which Professor Notcutt had given notice:

'That every candidate be required to pass in either Logic and Psychology or Mathematics.'

It was further resolved that the Committee in question be instructed to submit its report to the next meeting, with a view to the examination being instituted in 1910, if practicable.

Professor MacLayden thereupon withdrew the following motion, of which he had given notice:

'That the proposal to grant Honours in the Mixed or Teachers' Degree be referred back to the Literature and Science Committee'

The following motion of which Professor Notcutt had given notice was held over:

'That in 1910 no examination for Honours be held in connection with the Mixed B.A. Degree.'

In the above connection letters were read conveying the following resolutions adopted by the Bodies mentioned:

(a) Rhodes University College Senate.

- (1) That the Senate of the Rhodes University College is in favour of a Common Mixed Examination for the Pass Degree.
- (11) That the question of Honours in the Mixed Degree should be referred back to the Literature and Science Committee for reconsideration.

(b) Diocesan College Senate.

- (1) That the Senate is in favour of Mixed Examinations for Pass Degrees only - provided that every candidate be obliged to pass in Logic and Psychology, or in Mathematics.
- (11) That the Senate considers that the question of Honours for a Mixed Degree should be referred back to the Literature and Science Committee for reconsideration.

(c) Victoria College Senate.

- (1) That the Senate is unanimously in favour of the principle of a Mixed Degree.
- (11) That in the opinion of this Senate the whole scheme should be referred to the Special Committee considering the matter of the Honours Mixed Degree.

20. The following scheme of marks and standards for the Intermediate Examination in 1910, adopted at the previous meeting was brought up for confirmation:

English	300
Latin or Mathematics	350
Dutch or French or German	250
Applied Mathematics or Physics or Chemistry*	300
or Botany or Zoology or Geology	250
History	250
Class	300

* (Written 150, Practical 120: the minimum to be obtained in both the written paper & the practical examination).

That 80 per cent. be the minimum on each compulsory subject and that in the aggregate the minimum be 40 per cent. on the maximum aggregate for five subjects, and that in the optional subjects no marks under 20 per cent. be counted.

Proposed B.A. Degree in Literature & Science.
Letters from Aug 19.
Senate.

November 1908

Before the scheme was confirmed, the following letter was read, protesting against the marks assigned to the subjects, Botany, Zoology and Geology:

Gentlemen,
At the last meeting of the University Council held on August 21st, 1908, the report of the Special Committee appointed to consider and report upon the Syllabuses and Standards for the Intermediate Examination (New Scheme) was submitted.

This Committee recommended that, as in the previous scheme, Applied Mathematics, Physics, Chemistry, Botany, Zoology and Geology should be equivalent, and carry 300 marks each.

It appears that, without consulting anybody specially conversant with Botany, Zoology or Geology, and without giving notice to the members of the Committee or to the Council members generally, a resolution was passed assigning 250 marks to each of these three subjects, leaving the other subjects untouched.

We, the undersigned Professors of Botany, Zoology and Geology protest against this hasty action of the Council, and would respectfully request that this resolution be not confirmed, and that the question be reopened for further consideration.

We have etc.

- Geo. Potts, Grey Univ. College, Bloemfontein.
- S. Schonland, Rhodes Univ. College, Grahamstown.
- Ernest H. S. Schwarz " "
- J. E. Dierden " "
- A. V. Duthie, Victoria College, Stellenbosch.
- R. Broom, " "
- J.D.F. Gilchrist, S.A. College, Cape Town.
- Andrew Young, " "
- H.H.W. Pearson, " "
- Robert B. Young, Transv. Univ. College, Johannesburg.
- Bertha Stoneman, Huguenot College, Wellington.

It was resolved that the scheme of marks be not confirmed.

Professor Morrison gave notice to move at the next meeting "That the marks for the Intermediate Examination in 1910 be as in the scheme submitted for confirmation at the meeting of November, 1908."

21. The following Report of the Vice Chancellor's Committee was submitted by the Vice Chancellor.

REPORT OF THE VICE-CHANCELLOR'S COMMITTEE.

(Submitted 6th November, 1908)

1. The Committee reports that it has approved, on behalf of the Council, of the following subject in Political Economy and Economic History selected by a candidate for the M.A. Examination (Part II) in the Department of History, viz:
"Economic and Historical Aspects of the Mercantile System."
2. The Committee reports that it has approved of the B.A. Examinations in the Department of Science in 1909 commencing on the 2nd of December so that they may be completed before the Christmas Holidays.
3. The Committee has, in conjunction with the Finance Committee, considered the question of the organisation of the work of the Registrar's Office, in terms of the resolution adopted by the Council at its last meeting, and recommends that the matter should stand over until January, 1909.

The Report was adopted.

22. The following Report of the Examiners' Selection Committee was submitted by Pigeon Ritchie :

REPORT OF THE EXAMINERS' SELECTION COMMITTEE.

(Submitted 6th November, 1908).

1. The Committee reports that it has made the following appointments:
 - (a) Mr. H. C. Girdlestone, D.A., to be examiner in German at the Intermediate Examination in place of Dr. Macgowan resigned.
 - (b) Professor van der Niet to be examiner in Chemistry First and Second Papers at the B.A. Honours Examination in place of Mr. J. M. Grofts resigned.
 - (c) Professor Morrison to be Chairman for Physics at the B.A. Examination in place of the Vice-Chancellor resigned.

2. The Committee recommends the appointment of the following additional examiners for 1908:

(a) B.A. Honours. Applied Mathematics	(Prof. Morrison (Dr. Halm
(b) B.A. Pass. Applied Mathematics (Practical Examination)	(Prof. Lehfeldt (Prof. Rudge.
(c) Survey. Optics and Heat (Practical Examination)	(Prof. Lehfeldt (Prof. Rudge
(d) Second Mining. Physics (Practical Examination)	(Prof. Malherbe (Prof. Sutton
(e) First Mining. Applied Mathematics (Practical Examination)	(Prof. Morrison (Mr. D. Williams
Physics (Practical Examination)	(Prof. Malherbe (Mr. D. Williams

3. With reference to the resolution adopted by the Council at its last meeting empowering the Committee to make all necessary arrangements for the holding of a common examination for the Third and Fourth Examinations for the Mining Diplomas of the University and the Transvaal, provided, in the opinion of the Committee, a satisfactory financial agreement is come to with the ~~EFansvaal~~ University College authorities, the Committee reports that it has arranged for the above examinations to be conducted in common this year.
The examiners under this arrangement will be as follows:*

Geology:	(Mr. H. Kynaston, Director of Geological Survey, P.O.Box 418, Pretoria. (Professor R. B. Young.
Mining:	(Mr. Kotze, Government Mining Engineer, (Winchester House, Johannesburg. (Professor Yates.
Ore Dressing:	(Mr. W.L. Honnold, Box 2269, Johannesburg. (Professor Yates.
Mining Economics:	(Mr. M. Francke, Box 1156, Johannesburg. (Professor Yates.
Surveying:	(Mr. van der Stel, Johannesburg. (Mr. T. E. Robertson.
Metallurgy and Assaying:	(Mr. A. McA. Johnston, Box 1167, Johannesburg, (Professor G. H. Stanley.
Engineering:	(Mr. W. M. Epton, Box 1132, Johannesburg. (Mr. J. A. Frerichs, Johannesburg. (Professor J. Orr.

November 1908

4. With reference to the marking of B.A. papers set by joint Examiners, the Committee recommends that the following regulations be adopted:
- Each examiner shall examine and mark the candidate's papers independently.
 - The examiner shall not enter the marks assigned by him on the Answer Books but only upon the Mark Sheets provided for the purpose.
 - The mean of the marks assigned by the separate examiners shall ordinarily be taken by the Registrar to be the candidate's final marks in the paper.
 - In cases where, in the opinion of the Registrar, the discrepancy between the marks assigned by the separate examiners to any candidate is such as to render it desirable that the marks should be reconsidered, the papers shall be referred back by him to the examiners for such reconsideration; and the examiners shall thereupon consult together either in person, or, where this not practicable, by correspondence.
5. With reference to the motions moved at the last meeting of the Council by Dr. Jenkins and the Pro Vice-Chancellor and referred to the Committee by resolution of the Council for report, the Committee recommends (a) that the examiners in Honours in each Department of the B.A. Examination be required to confer together on the collective effect of the marking in the different sections before the results are finally accepted.
(b) That the same principle be applied to the Law Examinations.
6. The Committee has also considered the desirability of discontinuing the issue of provisional lists of successful candidates at the University Examinations, and recommends that no such lists be issued in future, but that a Special Committee be appointed annually by the Council at its November meeting, which shall be empowered to act on behalf of the Council in dealing with the reports of the examiners under the provisions of Section 11 of the University Incorporation Act, and to issue final lists for all examinations.
- If this recommendation be adopted, the Committee further recommends that the following be the Special Committee for the Examinations of 1908, viz:

The Vice-Chancellor
The Pro Vice-Chancellor
Prof. Hahn
Prof. Martin
Prof. Notritt
Mr. Searle
Mr. Whitton
The Registrar,

four members to form a quorum.

The items were considered seriatim, and the following decisions were recorded:

- This was noted.
- This was adopted.
- This was adopted.
- This was adopted.
- This was adopted.
- This was adopted, with the substitution of Dr. Flint's name for that of Professor Notritt, and the addition of the names of Dr. Guyay and Professor Logeman, five members to form a quorum.

In connection with paragraph 2 the following examiners for the B.A. Practical Examinations in Chemistry in 1908 were appointed:

Honors: Professor van der Riet and Mr. J. Lewis M.A.
Pass: Professor du T. Malherbe and Mr. J. Lewis M.A.

In connection with paragraph 6 the following definition of the powers of the

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Special Committee referred to herein was adopted:

- (a) To issue final lists if satisfied with the reports of the examiners.
- (b) If not satisfied with these reports, to refer them back to the examiners.
- (c) In cases where the Committee is still in doubt, to withhold publication of the lists and to refer them to the Council.

23. The following Report of the Special Committee on the appointment and payment of Examiners was submitted by Professor Beattie:

REPORT OF THE SPECIAL COMMITTEE APPOINTED TO ENQUIRE
INTO AND REPORT UPON THE APPOINTMENT AND PAYMENT OF
EXAMINERS.

(Submitted 6th November, 1908)

Committee

Prof. Beattie (Chairman)
Dr. Flint
Mr. Fremantle
Prof. Morrison
Prof. Notcutt
Prof. Ritchie
Mr. Searle
Prof. Viljoen.

A. Appointment of Assistant Examiners.

1. The Committee is of opinion that in view of the increasing number of papers that have to be examined, more especially in the School Higher and Matriculation Examinations, within a very limited period, it is necessary to adopt measures to distribute the work between a larger number of examiners, and recommends accordingly that it be a standing instruction to the Examiners Selection Committee that, if the number of candidates taking a subject in any year exceeds 600 (or such other number, not being less than 500 or more than 700, as the Committee may from time to time decide), it shall provide for the paper in that subject in the following year to be dealt with in one of the following ways:
 - (a) to be assigned to a Chief Examiner with the Assistance of an Assistant Examiner;
 - (b) to be divided into two Parts with two (Chief) Examiners, who shall be jointly responsible for setting the whole Paper;
 - (c) to be assigned to one Chief Examiner with the assistance of two Assistant Examiners;
 - (d) to be divided into two Parts with two Chief Examiners, who shall be jointly responsible for setting the whole Paper, and each of whom shall have the assistance of an Assistant Examiner.
2. If the above be approved the Committee further recommends the adoption of the following regulations relating to the employment of Assistant Examiners:
 - (1) The Chief Examiner shall submit for the approval of the Examiners' Selection Committee not later than 30th June the name and qualifications of the proposed Assistant Examiner in his paper.
 - (2) The full list of Assistant Examiners, as approved by the Committee, shall be submitted to the Council for confirmation at its August meeting.
 - (3) The Assistant Examiner shall examine the answers of all the candidates to the questions assigned to him, acting under the direction of the Chief Examiner, whose decision in doubtful cases shall be final.

- (4) The Mark Sheets shall be signed and returned to the University by the Chief Examiner.
- (5) When the work has been completed the Chief Examiner shall forward to the Registrar a statement certifying that he has examined the answers of all candidates to questions (A, B, C, etc.), and that the Assistant Examiner has examined the answers of all candidates to questions (D, E, F, etc.), provided that the actual work of examining the papers shall, as far as possible, be divided equally between the Chief Examiner and each of the Assistant Examiners.
- (6) The fee for examining the paper shall be divided between the Chief Examiner and the Assistant Examiners in the following proportions:

	Chief Examiner	Assistant
(a) Where one Assistant is employed	three fifths	two fifths
(b) Where two Assistants are employed	four tenths	three tenths each.

B. Payment of Examiners.

The Committee has given further consideration to the proposed Tariff of Fees to Examiners, recommended by the Finance Committee in May last, which was referred to the Committee for report by the Council, and it recommends that the following tariff be adopted:

	Present Tariff		Proposed Tariff		Minimum Fee if papers are examined.
	Fee for preparing a 3 hrs. paper.	Fee for marking a 3 hrs. paper.	Fee for preparing a 3 hrs. paper.	Fee for marking a 3 hrs. paper.	
School Higher	£3	1/6	£3	1/6	£5
Matriculation	£3	(Arith. 1/-) 2/-	£3	(Arith. 1/-) 1/6	£5
Intermediate,) First Mining) & Survey, Pt. I.)	£5	(Arith. 1/6) 3/-	£4	(Ar. & Alg. 1/-) 2/6	£6
2nd Mining and Survey, Pt. II.	£5	4/-	£5	3/6	£7
B.A.	£5	4/-	£5	4/-	£8*
Law Certificate & C.S. Lower Law	£5	5/-	£4	3/6	£8
LL.B. & Civil Service Higher Law	£5	5/-	£5	5/-	£10
LL.D.	£5	-	£5	Nil	-

*£5 for each examiner in cases where the paper is set and also marked jointly by two examiners.

Notes.

- One day's practical examination to be reckoned as equivalent to a three hours' paper.
- The fee for providing specimens (in Botany and Geology) for the Matriculation and Intermediate Examinations to remain as at present, namely, 1/- per candidate in the case of the Matriculation Examination and 2/- per candidate in the case of the Intermediate Examination.
- In the case of papers of less than 3 hours' length the fee to be proportionately reduced.
- In the case of divided papers (whether between two Chief Examiners or between Chief and Assistant Examiners) the fee to be proportionately divided with 10% added.

(The Tariff for the M.A. Examination has already been approved by the Council and that for the Third and Fourth Years' Mining Examinations is being dealt with by the Examiners' Selection Committee.)

C. Fee for School Higher Examination.

The Committee recommends that the fee for the School Higher Examination be raised after the current year to £1, with a re-registration fee of 15/-.

The items were considered *seriatim*, and the following decisions were recorded:

A. 1 and 2. These were adopted

B. This was adopted, with the following amendments in regard to the fees payable for marking a three hours' paper:

(a) School Higher : Algebra fee 7/-

(b) Matriculation : Arithmetic and Algebra fee 7/6

All other papers fee 2/-.

24. The following Report was submitted by the Special Committee appointed to allocate the marks for Dutch at the Matriculation Examination in 1909, and to suggest the prescribed works in Dutch for the School Higher and Matriculation Examinations in 1910 :

The Committee recommends that the marks for Dutch at the Matriculation Examination in 1909 be allocated as follows:

(a)	Accidence and Simple Syntax	60
(b)	Translation into English	60
(c)	Translation from English	60
(d)	Original Composition	90
		<u>270</u>

and that the prescribed works for 1910 be

- (a) School Higher: Justus van Moerbeke, Mich. Rot. Verbs; Jan Smees.
- (b) Matriculation: Hildebrand, Camera Obscura; Gerrit Witse.

The Report was adopted.

25. The following Report of the Finance Committee was submitted by D^r. Flint:

REPORT OF THE FINANCE COMMITTEE.

(Submitted 6th November, 1908)

1. Refund of Examination Fees.

The Committee has given further consideration to the Regulations with regard to the Refund of Examination Fees adopted by the Council at its meeting in May last and recommends that the following Regulations be substituted therefor:

- (a) If a candidate withdraws his name before the day on which entries close, his examination fee shall be returned and his name removed from the list of candidates.
- (b) If a candidate for any examination fails to present himself at the examination, his fee will not be returned to him but he will be entitled to present himself at the next following examination on payment of half of the usual re-registration fee, provided, however, that in exceptional cases a refund of the full fee may be authorised by the Finance Committee.

2. Gratis issue of University Gazette.

The Committee recommends that from January 1st, 1909, the University Gazette be supplied gratis to the Principal of any

School or Institution which is preparing candidates for any examination conducted by the University.

3. Purchase of Four per cent Colonial Stock.

The Committee reports that it has tendered for and been allotted £2500 four percent Colonial Stock, at 1/- above par, as an investment of Floating Balances on the various Scholarship Funds.

4. Supervision of University Buildings, etc.

As the first portion of the new building has been completed in accordance with the contract and the Building Fund in respect thereof has been closed, the Committee recommends that it should be the Committee specifically charged with the duty of providing for the general upkeep of the University Buildings and property.

5. Provision of Additional Staircase.

The Committee has authorized an iron spiral staircase to be fixed at the South-West end of the corridor to facilitate supervision of the work conducted in the offices on the ground floor, especially during the examination pressure, and to give access for the staff to the ground floor without their having to pass the rooms let to the British Medical Association and the Colonial Medical Council.

The items were considered seriatim, and the following decisions were recorded:

1. This was adopted, with the following additions:

Clause (a) after the word 'returned' the words 'subject to the deduction

of a fine of 5/-' were inserted.

Clause (b) before the word 'exceptional' the word 'very' was inserted.

2. This was adopted.
3. This was adopted.
4. This was adopted.
5. The action taken was confirmed.

26. The following Report of the Admissions Committee was submitted by Professor Viljoen in the absence of the Chairman:

REPORT OF THE ADMISSIONS COMMITTEE.

(Submitted 6th November, 1908)

1. Admissions ad eundem statum.

The Committee reports that it has admitted the following candidates to the examinations specified:

Survey Examination: Joseph Ellman

Intermediate Examination: Thomas Browning Watson.

2. Admissions ad eundem gradum.

The Committee has considered the following applications for admission to the degrees specified:

Name of Applicant.	Degree to which Applicant desires admission.	Sponsor.
A.		
Anderson, Hector James, M.A., Edinburgh, 1901.	M.A.	Dr. Muir.
Baigrie, Robert John, M.A. St. Andrews, 1905	M.A.	Prof. Walker.
Cillie, Gabriel Gideon, Ph.D., Strassburg, 1904.	M.A.	Prof. Walker.
Clark, Lena, M.A. Edinburgh, 1907	M.A.	Prof. Hahn.
Clark, Nettie, M.A. Edinburgh, 1907.	M.A.	Prof. Hahn.
Clark, Ruth, M.A. Edinburgh, 1908.	M.A.	Prof. Hahn.
Crots, Frederick Petrus, M.A., Cambridge, 1906.	M.A.	Prof. Walker.
Heaton, Ronald William, M.A. Cambridge, 1894.	M.A.	Justice Weesels.
Hoernlé, Reinhold Friedrich Alfred, M.A. Oxford, 1907.	M.A.	Prof. Ritchie.
Knothe, Gerhard, Ph.D., Strassburg, 1908.	M.A.	Prof. Ritchie.
Lamont, Alexander Buchanan, M.A., Glasgow, 1900.	M.A.	Dr. Muir.
Lodewyckx, Augustijr, Docteur en Philosophie et lettres, Ghent, 1902.	M.A.	Prof. Walker.
Morrison, Alexander M.A., Edinburgh, 1891.	M.A.	Mr. Tucker.
Viljoen, Willem Jacobus, Ph.D., Strassburg, 1894.	M.A.	Prof. Walker.
Wilkinson, James Alfred, M.A., Cambridge, 1896.	M.A.	Prof. Hahn.
Young, James Maclaren, M.A., St. Andrews } 1903. B.Sc., " }	M.A.	Mr. Gunn.
Morton, Charles Edward, B.A., Cambridge, 1905.	B.A.	Adv. Searle.
Sellick, Henry Octavius, B.A., Oxford, 1907.	B.A.	Dr. Muir.
Swift, Eustace Masker, B.A., Oxford, 1907.	B.A.	Sir C. Abercrombie Smith.
Yeoman, William Farquhar, B.A., Oxford, 1907.	B.A.	Dr. Jenkins.
Santhagens, René van Eibergen, Civil Engineer, Brussels, 1888.	M. Sc. (in Engineering)	Prof. Morrison.
De Villiers, Jean Etienne Reenen, LL.D., Cambridge, 1908.	LL.D.	Adv. Schreiner.
Evans, Isaac Rennison, LL.D., Melbourne, 1897.	LL.D.	Sir J. Buchanan
Tredgold, Clarkson Henry, LL.B., Cambridge, 1888.	LL.B.	Sir J. Buchanan
Hahn, Hellmuth Aneck, M.D., Halle, 1907.	M.D.	Prof. Hahn.
Ramsbottom, Alfred Ernest William, M.D., Durham, 1902.	M.D.	Dr. Brill.