

WEST MIDLANDS EXAMINATIONS BOARD

**CERTIFICATE OF
SECONDARY EDUCATION**

**REGULATIONS
AND
SYLLABUSES
1966**

Internationales Schulbuchinstitut

Braunschweig

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1966**

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**CERTIFICATE OF
SECONDARY EDUCATION**

WEST MIDLANDS EXAMINATIONS BOARD

The West Midlands Examinations Board was set up on 8th July, 1963 to administer the Certificate of Secondary Education in the West Midland Region, comprising the area of the following education authorities:-

Birmingham	Staffordshire
Burton-upon-Trent	Stoke-on-Trent
Coventry	Walsall
Dudley	Warwickshire
Herefordshire	West Bromwich
Shropshire	Wolverhampton
Smethwick	Worcester
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WEST MIDLANDS EXAMINATIONS BOARD
Certificate of Secondary Education

TIME TABLE 1966

Day	a.m.	p.m.
MAY		
M. 2		2. 0—3.30 German : Paper I
Tu. 3	9. 0—12. 0 Accounts	2. 0—4.15 Metalwork (Craft Knowledge)
W. 4	9. 0—12. 0 English : Paper I	2. 0—4. 0 Shorthand
Th. 5	9.30—11. 0 Spanish : Paper I	2. 0—3.45 Rural Science: Paper I
Fr. 6	9.30—12.15 Mathematics : Paper I	2. 0—3.45 Needlecraft
M. 9	9.30—11.45 Science : Paper I	2. 0—3.30 French : Paper I
Tu. 10	9.30—11.45 English : Paper II	2. 0—4.15 Technical Drawing : Paper I
W. 11	9.30—11.45 Religious Educn.: Paper I	2. 0—4.15 Geography: Paper I
Th. 12	9.30—11.45 Music	2. 0—4.15 Rural Science: Paper II
Fr. 13	9.30—11.45 History	2. 0—3.45 French : Paper II
M. 16	9.30—12.15 Mathematics : Paper II	2. 0—3.45 Home Economics
Tu. 17	9.30—11.45 Science : Paper II (General Science, Biology, Human Physiology)	2. 0—3.45 Religious Educn.: Paper II
W. 18	9.30—11.45 Science : Paper II (Chemistry)	2. 0—3.45 Spanish : Paper II
Th. 19	9.30—12.15 Art and Craft : Paper A	2. 0—4.15 Commerce
Fr. 20	9.30—11.45 Geography : Paper II	2. 0—4. 0 Typewriting
M. 23	9.30—11.45 Woodwork (Craft Knowledge)	2. 0—3.45 German : Paper II
Tu. 24	9.30—12.15 Technical Drawing : Paper II	2. 0—4.15 Science : Paper II (Physics)

Oral Examinations and Practical Examinations will be held in schools before the start of the written examinations, on dates to be announced later.

GENERAL REGULATIONS

1. *Date of Examinations*

The examinations will be held annually in May.

Entries for the examination, on the prescribed form, must reach the Board's offices not later than the 31st January. In the previous November schools will be asked to give an estimate of entries.

2. *Examination Centres*

Applications from schools for registration as an approved examination centre must be made on the form supplied by the Board.

A Local Examination Secretary must be nominated. Normally this should be the Head of the School concerned.

The Board reserves the right to send a representative to a centre at any time to inspect the arrangements and the manner in which the examinations are conducted.

3. *Eligibility of Candidates*

The Schools Grant Amending Regulations (1959 and 1963), stipulate that "A pupil must not be entered for any external examination unless:

- (a) he has completed or is about to complete his fifth school year of a course of secondary education: or
- (b) he will have attained the age of sixteen on or before the 1st September in the year in which the examination is held".

The Secondary School Examinations Council also indicate:

"Where, for the time being, further education establishments provide the only opportunity for a fifth year of secondary education, candidates entered by such establishments may be accepted for the examination if they have completed five years' full-time secondary education partly in school and partly in a further education establishment.

Other candidates may also be accepted from further education establishments provided they are not less than 17 years of age on the 1st September following the summer term in which the examination is taken, or have completed two years' part-time or one year full-time study in a further education establishment following four years' full-time secondary education".

4. *Method of Entry*

Candidates may be entered only by a school approved as an examination centre by the Board, and normally will be examined at the same school. The Head of the school will be responsible to the Board for examinations held in his school, and all correspondence relating to the examinations will be conducted through him. Candidates may not communicate directly with the Board.

5. Examination fees will be subject to annual review. For 1965 they comprise a Registration Fee of 10s per candidate plus a Subject Fee of 25s per subject entry. For 1966 they will be announced when entries are required.

6. *Withdrawals and Refunds*

Registration fees will not be refunded.

Subject entry fees may be refunded when a candidate withdraws from the whole examination with the consent of the Secretary.

No refund will be made to candidates withdrawing or absent from part of their examination.

7. *Subjects of Examinations*

(a) *Mode 1*

The Board will offer external examinations on the syllabuses set out on pages 9 to 89.

(b) *Mode 2*

The Board will offer external examinations on special syllabuses already submitted by schools and approved by the Board.

(Note : syllabuses proposed by schools for examinations in 1967 should be submitted to the Board by 31st July, 1965. 20 copies of the Syllabus and of the specimen examination paper and marking scheme are required for the use of the Subject Panel).

(c) *Mode 3*

The Board will also award certificates on the results of examinations conducted internally by schools on syllabuses already accepted by the Board for this purpose. This will involve external assessment and validation of results by the Board.

(Note : syllabuses proposed for Mode 3 examinations in 1967 must be submitted by 31st July, 1965, in the same manner as for Mode 2).

Candidates may be entered for any one or more subjects at discretion, and certificates recording successes will be awarded to candidates.

At its discretion, the Board may disallow papers in any subjects for which a candidate has not been entered correctly.

8. *Examination Results*

As soon as possible after the examination, result lists will be sent to Local Examination Secretaries.

9. *Issue of Certificates*

Certificates of Secondary Education will be issued to those candidates who secure at least one grade in the range 1-4 inclusive; where issued, they will also record grade 5 results.

Other grade 5 results will be treated in the same way as ungraded classifications.

A brief explanation of the meaning of the grades will also be printed on the back of all certificates.

All certificates will be sent to the Local Secretary, who will be responsible for their distribution.

Duplicate certificates cannot, in any circumstances, be issued.

10. Any candidate using or attempting to use irregular or unfair practices at the examination will be reported forthwith to the Secretary of the Board and may be disqualified.

Mathematical Tables are not supplied by the Board. Centres are asked to provide for the use of their candidates, copies of "Logarithmic and other Tables For Use at Examinations" by F. Castle, published by Macmillan and Co. Ltd. These should be available at any examination involving calculations, unless their use is specifically forbidden.

CORRESPONDENCE

Correspondence and enquiries concerning examinations conducted by the Board should be addressed to :

The Secretary
West Midlands Examinations Board
Norfolk House
Smallbrook Ringway
Birmingham 5

Telephone : MID 0266

All cheques, postal and money orders must be crossed and made payable to 'West Midlands Examinations Board'.

Correspondence will not be conducted with individual candidates in attendance at schools and institutions which have been recognized as Centres.

Note : Annually, at the time of publication, copies of the Board's 'Regulations and Syllabuses' will be supplied by the Secretary without charge to all secondary schools (including independent schools) registered with the Board, as well as to Local Education Authorities and Institutes of Further Education in the Board's area. All other requests for copies of the Regulations and Syllabuses must be accompanied by the appropriate cash or remittance.

SECONDARY CERTIFICATE SERIES *general editor* K. N. Watkins *Ph.D.*

Secondary Certificate English

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RURAL SCIENCE, CHEMISTRY and PHYSICS courses coming summer. BIOLOGY course coming December



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Nelson, Parkside Works, Edinburgh 9

ART AND CRAFT

Candidates must offer course work, plus any two papers from the four sections listed below :

- (a) Appreciation of Painting, Architecture and Design in Everyday Life.
- (b) Craft.
- (c) Drawing and Painting from Observation.
- (d) Imaginative Composition.

In all the Art and Craft examinations, a candidate should be free to leave when he considers he has finished.

Course Work

Candidates will be required to show a representative selection from examples of work done during the preceding two years. Note and/or sketch books may be included.

The work will be internally marked and externally assessed.

Course work and the two papers taken from sections *a*, *b*, *c*, *d*, will each count one-third of the total marks.

PAPER A

Appreciation of Painting, Architecture and Design in Everyday Life

This paper will be given $2\frac{1}{2}$ hours and in addition, 15 minutes will be allowed in which to study the questions. It will be timetabled in the main block of examinations. There will be no advance notice of the examination paper.

It will be divided into three sections. Candidates will answer questions, usually from one section only, though they may take questions from more than one section if they wish.

Within each section areas for study will be indicated to narrow down what would otherwise be too vast a field. The examination aims to encourage students to form opinions which are based upon knowledge and thought, as opposed to first reactions, and to enable useful comparisons to be made.

During the course, wide use should be made of visual material of all forms, actual examples, prints, filmstrips, epidiascope projection, etc. Students should form their own collection of relevant material, illustrative and written, from newspapers, magazines, catalogues, etc. and carry out research in libraries.

Wherever possible study should be related to local art collections, architecture and industries.

Course work should be broadly based and not confined only to the aspects of design demanded by the syllabus.

Most questions in the appreciation paper will be of the 'common-core' type and candidates will refer, in their answers, to reproductions, drawings or diagrams which will be before them on the question paper.

Section 1—Painting

Two British Landscape Painters. John Constable. Paul Nash

Reproductions, in various forms, of the work of both artists are readily available and so is access to original works. Candidates will be expected to :

- 1.—have a broad knowledge of the general standards of art as they were during the working life of each painter;
- 2.—have some knowledge in depth of each painter—of his technique and method of working; his own views on the nature of his inspiration; his particular kind of achievement;
- 3.—be able to compare one artist with the other in terms of the above;
- 4.—be able to make personal response to reproductions and not merely describe them.

French Impressionism—Monet, Manet, Renoir, Sisley, Degas, Pissarro.

Candidates will be expected to :

- 1.—know in what way the theories and techniques of Impressionism were a departure from earlier conventions and to understand the importance of light and colour to the movement;
- 2.—know the strengths and weaknesses of Impressionism;
- 3.—know the relationship of each painter to the general movement, and recognize his characteristic style.

Section 2—Architecture

(a) *Domestic house design during the past century* exteriors only and excluding flats and highly priced individual houses.

Candidates should :

- 1.—know the factors, such as constructional methods, material, cost, etc. which influence final appearance;
- 2.—recognize houses which are typical of certain periods;
- 3.—be able to discuss, both practically and aesthetically, main proportions, and proportions of voids to solid areas, roof styling, doorways, pattern, texture and suitability of materials used, etc;
- 4.—be able to comment on the best and the worst features of modern house design.

(b) *Main periods of English architecture from Saxon and Norman, Gothic, Renaissance—Ecclesiastic and domestic architecture.*

Modern. Flats and public buildings.

Academic knowledge as given in architectural text-books is not sought. Direct observation of buildings in the region is more important. Candidates will be expected to :

- 1.—recognize the characteristics of each period;
- 2.—know the essential constructional or aesthetic principles which mark one style from another;
- 3.—be able to discuss developments within each style.

Section 3—Design in Everyday Life

(a) *Design of easy chairs and dining chairs in past century* with particular emphasis on present-day design.

The main functions of the chair remain constant whatever the period, but its appearance has varied considerably due to changes of fashion, and to changes in manufacture and available materials. Candidates should be able to recognize good design from bad and comment on design generally.

(b) *Street Furniture*

Candidates will be required to have a knowledge of the development of street furniture. They should know how designs have been influenced by new materials, methods of construction, and the changing needs of modern life. The cumulative effect of street furniture in the townscape is as important as its individual design, as evidenced in the achievements of the Civic Trust.

PAPER B

Crafts

Schools will have four weeks in which to complete the examination and it is expected that all candidates will have sufficient time to carry out their intentions fully, and to fire pottery, prepare looms before weaving, etc.

Examination work in Crafts will not leave the school but will be assessed by visiting examiners, and no stipulations are made with regard to size of work or media used.

Candidates must offer ONE of the following crafts :

- 1.—Basketry
- 2.—Bookcrafts
- 3.—Embroidery
- 4.—Fabric and Wallpaper Printing
- 5.—Lettering and Calligraphy
- 6.—Modelling and Carving
- 7.—Posters and Display
- 8.—Pottery
- 9.—Printmaking
- 10.—Stained Glass and Mosaic
- 11.—Theatrical Design
- 12.—Weaving

or any other traditional or experimental craft, subject to twelve months notification and approval.

1. BASKETRY

Candidates will be required to design and make items of basket work for specified purposes.

They will be expected to know how to prepare and use centre cane.

The use of willow is optional.

Tests may include examples done on both wooden and cane bases.

The candidates should know how to set the stakes in a wooden base and be able to work a suitable foot trac. They should also be able to work a simple cane base, insert the stakes and "upsett" them, weave evenly and produce well shaped baskets. They should be able to do randing and waling, and know when to do waling and why it is used. They should be able to introduce some form of decoration, e.g. fitching, the use of coloured cane.

2. BOOKCRAFTS

Candidates will be required to bind or rebind books, files, gramophone record albums, etc., full, half or quarter bound in a variety of materials, showing evidence of sound construction and good practical workmanship.

3. EMBROIDERY

A design and a piece of embroidery not larger than 15-in. by 11-in. will be required, based on a theme set by the Examiner.

4. FABRIC AND WALLPAPER PRINTING

At the examination candidates will be required to design a fabric or wallpaper for a particular purpose, from given stimuli.

The designs should be in the form of a series of sketches in line, colour and texture, showing the progression leading to the final design. This should be completed full size and in colour and to show enough to give an idea of the repeat to be used.

The candidate will be required to print a length of material or paper of this design in the time permitted.

The Examiner will look for a design that shows an understanding of the problem and an imaginative interpretation of the set theme.

Candidates should have a knowledge of the main types and methods of printing, and of the dyes and inks used.

5. LETTERING AND CALLIGRAPHY

Candidates should have a knowledge of basic letter forms, both pen and brush drawn, and they should have studied Roman, sans-serif, block letter and the best known manuscript styles. They should be able to produce a well balanced arrangement for a notice, page or sign.

Alternative assignments will be set from which candidates will be required to choose **one**.

6. MODELLING AND CARVING

Work for examination under this section may be in the round or in the form of a relief panel. Any suitable material may be used; clay modelling fired or cast in plaster or resin; metal, wire and plaster models; papier maché; decorative panels in clay or plaster; beaten metal or other media; constructions in wood, wire, metal, etc; carving in wood, stone, plaster or other media. Imaginative use of pattern, texture, colour, form and space is encouraged.

A choice of subjects will be given by the Examiner from which the candidate will select and complete one in the time allowed.

7. POSTERS AND DISPLAY

The course should cover the purpose of display, some historical background and recent developments, particularly the link between the craft and fine art. As there is considerable overlap with the crafts of Lettering and Printmaking, the emphasis should be placed on the ability to combine several elements into one design, rather than technical ability in lettering. As all display design is based on the qualities of objects, the objects should be very carefully chosen and could link up with the work in design appreciation and other subjects. Careful study of the object for form, texture and pattern should precede designing, and the contrast between these qualities and those of display materials should be exploited to make the greatest visual impact. Experimental work should be encouraged as far as possible.

A number of alternative questions will be set to cover the following design groups :

- 1.—Poster, Advertisement and Brochure Design.
- 2.—Three-dimensional Display, including exhibition stands.
- 3.—Package Design, including record covers.
- 4.—Mural Designs in any media.

8. POTTERY

Work offered for examination in this subject may be thrown, pressed in or over a mould, coiled, slabbed or slip cast in a mould and may be decorated with any of the following techniques:

Slip trail and feathering, sgraffito through coloured slips, underglaze decoration with prepared colours or oxides. On glaze decoration either on the raw glaze or with enamel colours on the fired glaze, wax resist, sprigging, stencil or ground laying. A combination of the above techniques and imaginative use of these with an experimental approach is encouraged.

A choice of articles will be set by the Examiner from which the candidate will select and complete one.

9. PRINT MAKING—*Lino-cutting, Wood-engraving, Lithography, etc.*

Candidates will be required to make a print using any of the above methods. Prints may in black and white or colour and a combination of colours may be used if desired. An understanding of the possibilities of the chosen process will be looked for in the work submitted.

A series of alternative assignments will be set from which candidates will be required to choose one.

Preliminary sketches and drawings may be sent in together with the finished print.

10. STAINED GLASS AND MOSAIC DESIGN

Although knowledge of traditional methods is expected, the use of experimental media will be accepted as more appropriate. Cellophane, tissue paper, transparent oil or cellulose lacquers, etc., may be used for glass design, while paper, plastics, glass, tile, stone and gravels, etc., may be used for mosaics.

Questions will be set to cover the following sections :

- 1.—Stained glass and mosaic glass design.
- 2.—Illuminated pictures.
- 3.—Glass engraving and sgraffito, on sheet or formed glass.
- 4.—Mosaic, for interior or exterior use in buildings.

The candidate will be asked to submit one completed design from the choice given by the Examiner.

11. THEATRICAL DESIGN

On the examination paper three imaginary plays or dramatic situations will be outlined, two for theatre and one for a puppet stage. Candidates will choose ONE of these and design EITHER a stage setting, OR three costumes, OR a setting and two puppets.

The given situations will always demand settings of inventiveness and dramatic imagination, and will not be of the drawing-room or light comedy type using conventional interior decor.

12. WEAVING

The candidate will be asked to design and weave a piece of material about 1 square foot in area selected from a choice of subjects set by the Examiner.

Candidates should be able to wind a warp, thread up the loom and weave both a sampler and a finished piece. They should have had experience of working with wool and cotton, textured and plain work, also in designing for upholstery and soft furnishing fabrics and/or dress materials, scarves, etc. Candidates working on 4-heddle looms should be familiar with most of the well-known warp patterns and be able to devise similar patterns of their own.

PAPER C

Drawing and Painting from Observation

At the examination candidates will be required to make a study or studies from **ONE** of the following alternatives in any medium or combination of media :

- (a) figure and/or portrait,
- (b) natural forms,
- (c) man-made forms,
- (d) still life,
- (e) landscape.

Question papers will be sent to schools two weeks before the examination to facilitate the provision of models, plants, etc.

Following this period, and before the main block of examinations begins, a day will be fixed for the examination. The length of examination will be at the discretion of schools and may last up to a full day. There is no necessary advantage in taking a full day and most schools will probably decide on less. The discretion is given to schools, however, to meet the needs of candidates working on a large scale, or with a slow medium, or to enable them to recover from a poor start.

(Note: schools should arrange for the examinations for Papers C and D to be held on consecutive days)

The candidate will be expected to show a response to qualities of line, tone, texture and colour as they are presented to him in the form or object from which he chooses to work, and to the construction or growth characteristics of the form. He will not necessarily have to respond to all these qualities, but only to those which are most interesting in his artistic judgement.

(a) A pose will be set for the examination, and sketches of it issued beforehand, together with general instructions. As an alternative, a figure situation will be described, and schools may pose their own models. The types of clothing worn by the model will be left to the school.

(b) Schools will provide objects for the examination from their own collections, but it is desirable that such objects should not have been drawn by the candidates in the recent past and, if possible, should be new to them. A list of plants will be given, but schools may vary this in cases of difficulty.

(c) Objects should be of sufficient interest for drawing in themselves and not need to be supported by others in a group.

(d) A group will be set echoing a certain theme. A suggested arrangement will be published but schools may vary this to suit their own needs.

(e) This section is intended to meet the needs of those schools accustomed to outdoor sketching and which can allow candidates these facilities for the examination.

PAPER D.

Imaginative Composition

Candidates will choose **one** from the following groups:

- 1.—A picture based on a set theme, subject or situation.
- 2.—A composition based on a number of objects seen by the candidate, but added to from memory and/or imagination in order to make a well balanced arrangement.
- 3.—An abstract composition.

Question papers will be sent to schools two weeks before the examination to enable candidates to think about the questions, select the subject which appeals to them, and make preparatory studies. Preliminary sketches may be taken into the examination room but **NOT READY-MADE COMPOSITIONS.**

Following the two weeks' notice the examinations on Paper D will be held **on the day following the examinations on Paper C** and before the main block of examinations begins.

The length of the examination will be at the discretion of schools and may last up to a full day. There is no advantage, necessarily, in taking a full day, and most schools will probably decide on less. The discretion is given, however, to meet the needs of candidates working on a large scale, or with a slow medium, or to enable them to recover from a poor start.

The candidate should have something personal to express in what he produces. The given subject matter is merely a convenient starting point from which the candidate should develop his feelings about colour and texture, dramatic possibilities, etc., as the subject suggests them to him. His narrative idea may be of less importance than his colour scheme, for example.

Intellectual and representational factors are not so important as aesthetic factors—tone against tone, texture against texture, etc.

Many will naturally interpret subjects in terms of their familiar experience, but this need not necessarily be so.

The size and shape of the finished work will be left to the discretion of the candidate. It is to be executed in any traditionally graphic media, or any media which can be firmly fixed to paper or board.

COMMERCIAL SUBJECTS

Accounts, Commerce, Shorthand, Typewriting

Although it is proposed to set examinations in four separate subjects, Accounts, Commerce, Shorthand and Typewriting, the Board envisages these as different but closely allied aspects of a unitary approach to a part of the educational progress of selected groups of pupils. It also considers that, whilst for some pupils there may be a vocational bias, this is not necessarily so for all or indeed the majority. Commerce in its widest sense can be a valid educational window for many who will not engage in it directly and can be so oriented as to seize their imagination and widen their experience.

The course in any school may obviously consist of any number of these subjects in any combination and it was felt strongly that it would be wrong to exclude Typewriting or Shorthand which can have a real contribution to make, and which any school can itself exclude.

ACCOUNTS

One paper of 1 hour and one of 1½ hours

The first paper will consist of a single question on final accounts with not more than four adjustments.

The second will contain six questions of which the candidate will be asked to answer four. A period of 15 minutes before the commencement of each paper will be allowed for reading the questions. At the discretion of schools, a break of 15 minutes may be allowed between the two papers.

Candidates will be expected to have the ability to prepare and interpret the accounts of a sole trader and a non-trading concern, both for cash and on credit, based on the system of double entry. They should be aware of the use of accounts as an aid to management, have some conception of the need for integrity and good faith in business transactions, and appreciate how in an office each individual's contribution fits into the complete system of accounts even though loose-leaf mechanized accounting systems may be in use. Neatness and good presentation will be taken into consideration in the final assessment.

Recording of simple transactions in the Ledger, Cash Book (three column), Sales and Returns Day Books, Purchases and Returns Day Books, and the Journal. Use of folio numbers. Sources of information for books of prime entry.

Adjustments to final accounts; depreciation (fixed instalment method only); expenses owing and prepaid. Stock taking: choice of date; method of valuation.

Balance Sheets: fixed and current assets; the effect on the Balance Sheet of changes in assets and liabilities.

Drawings: Bank Reconciliation Statement, dishonoured cheques. Petty Cash Book (imprest), Postage Book.

Uses of Journal: opening entries, simple correction of errors; entries not covered by other Day Books. Trial Balance, uses and limitations.

Accounts of non-trading concerns, clubs and associations. Receipts and Payments Account and Income and Expenditure Account.

A knowledge of the following documents will be assumed: invoice; credit note, monthly statement of accounts; paying-in book; cheque; receipt.

NOTES

The style of the questions to be set will be of a relatively straightforward nature and not too long or involved. Arithmetical errors will not be heavily penalized, but up to ten per cent of the marks will be deductible for untidy and badly presented work. A long question using all the books of account up to the Trial Balance stage will not be set.

The following topics will NOT be included:

- 1.—accounts of a partnership or of a limited company;
- 2.—provision for bad debts and discounts; income accrued and income received in advance;
- 3.—percentage relationships, e.g. gross and net profits to turnover, and net profit to capital;
- 4.—working capital.

In view of the growth of mechanized accounting it is desirable that pupils see machines in action and are introduced to loose-leaf accounting methods using the debit, credit, balance lay-out, stressing that the basic principles taught in school remain fully applicable.

COMMERCE

The examination will be divided into two parts.

1.—A two hour written external paper relating to the subject matter detailed in the syllabus below. This paper will be divided into two parts.

- (a) Compulsory, mainly factual questions, with short—perhaps one word—answers. These will carry 20 per cent of the total marks for the whole examination.
- (b) A choice of 5 from 12 questions requiring longer answers. These will carry the remaining 60 per cent of the marks.

2.—An internal assessment of the candidates' course work over the preceding twelve months, from the beginning of the summer term in the fourth year. The course work will carry 20 per cent of the total marks for the examination. This assessment will be submitted by teachers before the written examination on a form provided by the Board.

The syllabus which follows is intended to cover the essential subject matter, but is deliberately not set out in any logical order. This could only arise from a preconceived idea of the way in which the subject matter should be tackled, whereas each school will necessarily have its own approach.

The approach is intended to be practical and related to the community in which the pupil lives rather than based on a study of abstract economic concepts, and should enable the student to build up a picture of the contemporary scene, and to grasp how he himself fits into the general pattern in his three-fold capacity as wage-earner, consumer and tax-payer. This will obviously include as an important part, a study of the local scene, on which a common external paper would not seem to be appropriate. Hence some assessment of course or project work appears essential.

SYLLABUS

The Economic System

Simple treatment of how the system works; satisfying needs in the modern world. Raw materials (e.g. coal, iron, cotton, wool, wheat, etc.) and their world sources.

From manufacturer to consumer, via wholesaler and retailer. Documents. Mass production (food, clothing, household goods, machinery, vehicles, etc.) and the location of main industries.

Types of business organizations—sole traders, brief mention of limited liability companies, multiple shops and department stores, retail co-operative societies, self-service stores and supermarkets, mail order houses.

Simple treatment of capital. Stock Exchange.

Taxation. Revenue and expenditure, including P.A.Y.E.

Our imports and exports—interdependence of one country upon another.

Business Aids and Public Services

Banking—Joint stock banks and trustee savings banks. Credit transfers.

Money (Bank of England Issue Department; the Mint).

Means of payment (excluding bills of exchange and promissory notes).

Transport—types of transport and reasons for the choice of one in preference to another for the carriage of goods.

Insurance—for business and the individual. National Insurance.

The Post Office—Services, e.g. providing a means of payment, banking, issue of licences, carrying and distribution of mails.

Public corporations—simple treatment of the National Coal Board, the Gas Council, British Electricity Authority, British Transport Commission, British Broadcasting Corporation, British Overseas Airways Corporation, British European Airways.

The Consumer's Problems

Hire Purchase Agreements (emphasizing necessity of reading before signing).

Resale price maintenance : origin and practice; present-day challenge.

Consumer protection; seals of approval and Consumers' Advisory Council (Which).

Quality markings : sales, advertising and publicity. Trading stamps.

TYPEWRITING

The examination will be of two hours' duration, and will include an output test of 15 minutes from printed matter. A minimum speed of 25 words per minute would be expected. Five strokes constitute a word.

The course should include :

Simple letters typed from printed matter, letters from manuscript drafts. Practice in typing letters on headed paper. Taking carbon copies, addressing envelopes, typing postcards and labels.

Arrangement of various business documents such as invoices and statements, completing ruled forms.

Simple displayed and tabular work.

An eraser may be used throughout the examination but untidy erasures will be penalized. Marks will also be deducted for overprinting, omissions, transpositions, mis-spellings and incorrectly divided words at line-ends. Any recognized method of spacing after punctuation is acceptable.

An English dictionary may be used during the examination.

SHORTHAND

(Pitman System)

Duration of examination 2 hours

In teaching shorthand great care should be taken to secure a neat and accurate style of writing. Pupils should have it continually impressed upon them that shorthand is of no use unless it can be afterwards read or transcribed correctly; and the facility with which this can be done depends very largely upon the accuracy and care with which the outlines are written. Outlines may be written in ink or pencil.

From the beginning, students should be constantly practised in reading shorthand, both from their own notes and those of other students, and from printed matter, e.g. the various shorthand periodicals.

Dictation should be given from the commencement. Symbols, words, sentences and connected matter should be taken down and afterwards read from the notes, and a portion transcribed. In all transcripts, special attention should be given to correct spelling, punctuation and paragraphing.

A thorough knowledge of theory is required to acquire proficiency in speed later. To test the theory two papers will be prepared consisting of :

1. (a) FIFTY selected words, to be written in shorthand on the sheet provided. Position and essential vowels to be shown. 20 minutes.
(b) ONE HUNDRED words in simple sentences.
The sentences will be printed on the answer paper and will also be dictated **ONCE** only at a slow speed. Candidates will write the shorthand outlines in the space allowed under the corresponding words on the answer paper. 25 minutes.
2. Speeds of 40/70 w.p.m. Time allowed for transcription 60 minutes.
One passage will be dictated at each of the four speeds : 40; 50; 60; 70 w.p.m.; They will be in the form of a business letter or memo. Each passage will be of two minutes' duration separated by an interval of two minutes.
Candidates will not be allowed to begin transcription until all dictation is complete. Transcriptions must be written in ink.
Candidates will be given the opportunity within the transcription time of transcribing two pieces, submitting one only.

MARKING SCHEME

	Total
50 selected words—one half-mark each word	25
100 words in simple sentences— one quarter-mark each word	25
Plus 10 marks for good style	10
<i>Speed: Marks awarded for transcription only</i>	
Two minutes at 40 w.p.m. (80 words)	
One quarter-mark each correct word transcribed	20
Two minutes at 50 w.p.m. (100 words)	
One quarter-mark each correct word transcribed	25
Two minutes at 60 w.p.m. (120 words)	
One quarter-mark each correct word transcribed	30
Two minutes at 70 w.p.m. (140 words)	
One quarter-mark each correct word transcribed	35
Punctuation, etc. for all speeds	5

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CSE

Specimen Papers

12 ENGLISH LANGUAGE PAPERS 4/-

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GLASGOW

ENGLISH

The examination will consist of the following sections:

	<i>Duration</i>	<i>Marks per cent</i>
<i>Paper 1</i>	3 hours	40
<i>Paper 2</i>	2½ hours	40
<i>Oral English</i>	—	20

Paper 1 will be concerned with expression and understanding as fundamental skills and Paper 2 with their use in the field of English literature.

PAPER 1

This paper will be set in two parts, in each of which the first 15 minutes of the allotted time will be allowed for studying the questions.

Part I 1¼ hours : one piece of continuous writing.

Part II 1¾ hours : a shorter piece of continuous writing and a test of understanding.

Part I

A composition will be required in which candidates will be expected to show their command of written English. Credit will be given for content, knowledge of varied sentence construction, evidence of a good vocabulary, and ability suitably to arrange the subject matter. Neat presentation will be of value.

There will be a wide choice of subjects requiring descriptive prose, purely personal writing, discussion of personal or social problems, or narrative techniques.

Part II

Question 1 :

A shorter piece of expository writing and/or a choice of letters.

Question 2 :

A test of understanding of a passage drawn from contemporary sources, including newspapers and periodicals. Candidates will be expected to show their ability to understand a sequence of thought or an argument, and to reproduce the main events, facts, or ideas in the order in which they are written. No précis will be required but rather the ability to make clear notes of the important points in the passage and to arrange them in an orderly fashion and expressed in the candidate's own words.

Vocabulary will be tested in such a way that knowledge of the meanings of words in their contexts will be implicit in the answer. A knowledge of idiomatic expressions occurring in the passage may be required.

PAPER 2

One paper of 2½ hours, of which the first 15 minutes will be allowed for studying the questions.

The paper will consist of three sections. Candidates will be required to answer four questions, drawn from at least two of the sections.

Section A. Prose

Questions will be set in such a way as to allow either or both of two approaches to the study of prose:

- (i) Study of specified themes (App. A) illustrated by books such as those in the list of recommendations (App. B).
- (ii) Study of at least two books chosen by the school. The titles and the names of the authors of these must be submitted to the Board by 30th September preceding the examination.

Section B. Poetry

Questions will be of a general nature and will be capable of being answered from a study of poetry contained in anthologies such as :

- “Discovering Poetry” Book IV (Longman’s).
- “Poetry for Pleasure” Books I and II (O.U.P.).
- “Sheldon Book of Verse” Book IV (O.U.P.).
- “Poems of Yesterday and Today” Book IV (Cassell).

Section C. Drama

Questions will be of a general nature and will be capable of being answered from a study of one-act or full-length plays of recognized literary merit.

Schools must submit the titles of at least one full-length or three one-act plays which they propose to study.

ORAL ENGLISH

The aim is to test the ability of candidates to communicate ideas, feelings and information in a clear and interesting manner, by the following methods:

- A. reading aloud;
- B. conversation on topic(s) submitted by the candidate, or conversation arising from a talk given by the candidate;
- C. in addition there will be required a teacher’s assessment, or an optional exercise in oral work to include any of the following:
 - (1) aural comprehension
 - (2) improvised drama
 - (3) giving instructions or directions
 - (4) dramatic reading
 - (5) comment on (i) book
(ii) film
(iii) picture
(iv) model.

Schools or groups of schools will conduct this examination themselves and arrange for a colleague from a neighbouring school to act as Examiner/Observer on the day of the conversation test. The Chief Examiner may then elect to sample any of these results.

Marks (20% of total English examination):

Section A	..	5
Section B	..	10
Section C	..	5

Appendix A. Themes for 1966

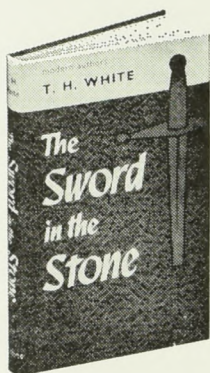
Animals
Science-Fiction
Travel and Adventure

Appendix B

The following books are recommended as suggestions only. Schools may submit alternative titles if they wish.

The Kraken Wakes : John Wyndham
Golden Apples of the Sun : Bradbury
Ring of Bright Water : Gavin Maxwell
Animal Farm : George Orwell
The Jungle is Neutral : S. Chapman
Jane Eyre : Charlotte Brontë
Great Expectations } Charles Dickens
Oliver Twist }
Eagle of the Ninth : R. Sutcliffe
Pied Piper } Nevil Shute
A Town Like Alice }
Brown on Resolution : C. S. Forrester
Mr Polly : H. G. Wells
The Go-Between : L. P. Hartley
Cry the Beloved Country : A. Paton
Journey to the Centre of the Earth } Jules Verne
20,000 Leagues Beneath the Sea }
20th Century Short Stories : pub. Harrap.
War of the Worlds : H. G. Wells
Adventures of Sherlock Holmes : Sir A. Conan Doyle
The Bafut Beagles : Gerald Durrell
A Pattern of Islands : Arthur Grimble
The White South : Hammond Innes
Kim : Rudyard Kipling
She : Rider Haggard
The 39 Steps : John Buchan
Wolf of the Badenoch : Chipperfield
Seal Morning : Rosemary Farr
Rogue Male : Geoffrey Household
My Early Life : Sir Winston Churchill
Cider With Rosie : Laurie Lee
Village School : "Miss Read"
Kon Tiki : Thor Heyerdahl

Modern Authors



1. **THE GUNS OF NAVARONE**
Alistair MacLean 7s 0d
2. **PORTRAIT OF ELMBURY**
John Moore 6s 0d
3. **CAMPBELL'S KINGDOM**
Hammond Innes 7s 0d
4. **BORN FREE**
Joy Adamson 6s 0d
5. **THE SWORD IN THE STONE**
T. H. White 7s 0d
6. **THE SUNDOWNERS**
Jon Cleary 7s 0d
7. **THREE FEVERS**
Leo Walmsley 6s 0d
8. **AIR BRIDGE**
Hammond Innes 7s 0d
9. **THE MURDER OF
ROGER ACKROYD**
Agatha Christie 6s 0d

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GEOGRAPHY

	<i>Duration</i>	<i>Marks</i>
<i>Practical Course Work</i>	—	20%
<i>Paper 1. British Isles</i>	2¼ hours	40%
<i>Paper 2. World and Special Study Topics</i>	2¼ hours	40%

The first 15 mins. of each examination will be allowed for reading the paper.

PRACTICAL COURSE WORK

Candidates will be expected to produce a notebook showing evidence of individual work on ONE of the following topics.

1. A record of a field work course.
2. A record of a series of day expeditions which formed part of a planned course of study in physical and/or human Geography.
3. The study of the Geography of a local industry or industries.
4. A study of transport and communications in relation to local needs e.g. industrial, agricultural, social.
5. A Land Use Survey.
6. Study and records of the work done on a farm throughout the year.
7. Climatic Observation Recording and Interpretation.
 - (a) Temperature, rainfall and wind direction.
 - (b) Local climate related to aspect of slope, shelter from wind, temperature inversion.
 - (c) Snowfall, depth and duration of different aspects.
 - (d) Frosts in respect of date and altitude.
 - (e) River flooding, height and dates correlated with precipitation.
 - (f) Cloud formations.
8. A record of practical experiments carried out indoors or outdoors to demonstrate geographical phenomena.

Course work will be marked internally. These marks will be submitted to the examiner who will select some books for assessment.

BRITISH ISLES

The geography of the British Isles with particular reference to physical features, climate, chief industries, including agriculture and fishing, sources of raw material and transport.

The paper will include questions of a regional and systematic nature with emphasis on the area covered by the West Midlands Examinations Board. There will be no compulsory questions and use may be made of photographs, statistics and written descriptions. Some question or questions will involve the interpretation of Ordnance Survey Maps ($\frac{1}{4}$ in., 1 in. or $2\frac{1}{2}$ in. scales) in connection with regional questions.

WORLD

Candidates should be familiar with :

- General distribution of the major land and sea masses.
- Land, sea and air routes.
- Location of the major cities, ports and waterways.
- Location of major physical features (mountains and rivers).
- Location of major climatic and vegetation regions.
- Location of the principal sources of major world products, e.g. agricultural, mineral.
- Latitude, longitude and time.
- Seasons, day and night.

This will be examined by a compulsory world map question involving identification of features marked on the map, and short questions of the objective type (not of the 'essay type').

SPECIAL STUDY TOPICS

Candidates will be expected to have studied any three topics to some depth. They will be required to answer three questions – one from each of the three topics studied.

TOPICS SET FOR 1966

- 1.—*Cereals*. Distribution and conditions for growth of wheat, maize and rice. Subsistence and commercial cultivation.
- 2.—*Cycle of Erosion*. Erosion, transportation and deposition by wind and running water and the resultant land forms.
- 3.—*St. Lawrence Basin*. Position, climate, industrial and agricultural development.
- 4.—*Population in Australia*. Distribution of population and factors governing. Immigration.
- 5.—*Hydro-Electric Power*. Distribution and conditions for development. Resultant industrial development.
- 6.—*Glaciation*. A study of glaciation and the resultant lowland and upland landscape.
- 7.—*Benelux Countries*. Position, climate, industries and agricultural development.
- 8.—*Brazil*. A broad comparison of the coastal region and the undeveloped interior, under the headings of population, industrial and agricultural development.
- 9.—*Deep-sea fishing*. Location of chief fishing areas of the North Atlantic, the development of fishing techniques, processing and marketing.
- 10.—*Weather*. An understanding of the elementary factors controlling the weather of the British Isles.
- 11.—*Nile Basin*. A study of the improvements in social and economic conditions with special reference to the development of the control of the Nile.
- 12.—*Japan*. Position, climate, industrial and agricultural development.

HANDICRAFTS

Metalwork

	<i>Duration</i>	<i>Marks</i>
<i>A written paper</i>	2 hours	30%
<i>A practical examination</i>	3 hours	40%
<i>Course work : teacher's assessment of work in 4th and 5th years</i>	—	30%

It is appreciated that schools will practise many aspects of Metalwork and it is the intention of the Board to examine, as far as possible, work actually done in schools without inhibiting the scope of that work by a detailed syllabus. It is hoped that schools will take full advantage of this freedom.

Written Paper—Craft Knowledge

The paper will consist of two parts. Two hours will be allowed for this, plus 15 minutes in which to study the questions.

Part A will test the candidate's experience in general metalwork.

Part B will cater for the various branches of metalwork, and a sufficient choice of questions will be given to enable a candidate to answer from any one branch.

Candidates will be expected to have a knowledge of :

1. Safety precautions normally taught in school workshops.
2. Use and care of tools and equipment; common lubricants and simple sharpening.
3. A basic knowledge of the simple properties of materials used in the school workshop.

Practical Test

At a suitable time before the examination schools will be supplied with pictorial sketches and lists of materials. Candidates will choose one test piece from these sketches.

A *minimum* of three tests will be offered and each test will be capable of completion in $2\frac{1}{2}$ hours by a candidate who might be regarded as of sufficient ability to obtain a Grade 1 pass, but three hours will be allowed plus ten minutes pre-view of the paper.

The tests may include one or more of the following branches : benchwork, forgework, sheet metalwork, beaten work and elementary lathework.

Each test should be predominantly, though not necessarily exclusively, concerned with one aspect or branch of the craft.

The entire range will include at least one workpiece that could be described as 'general in character' and might appeal to the candidate for whom no single branch of the craft has made an appeal more outstanding than the rest.

Before the examination candidates will be required to prepare their own material from cutting lists provided. The materials, tools and processes will be specified by the examiner. The working drawings will include a pictorial view of the assembled pieces.

Course Work

Candidates should have experience in the normal processes as practised in the school workshop. The work should reflect the full application of metalwork in schools. No bias will be looked upon as more important than another. Experimental work such as personal studies may be included.

HANDICRAFTS

Woodwork

	<i>Duration</i>	<i>Marks</i>
<i>A written paper</i>	2 hours	30%
<i>A practical examination</i>	3 hours	40%
<i>Course work : teacher's assessment of work in 4th and 5th years.</i>	—	30%

It is appreciated that schools will practise many aspects of Woodwork and it is the intention of the Board to examine, as far as possible, work actually done in schools without inhibiting the scope of the work by a detailed syllabus. It is hoped that schools will take full advantage of this freedom.

Written Paper—Craft Knowledge

Two hours will be allowed for this paper, plus 15 minutes in which to study the questions.

Materials : The properties of common hardwoods and softwoods used in the school workshop and their suitability for particular purposes.

The preparation of timber including conversion, and elementary knowledge of seasoning processes, and ability to recognise the various parts of the cross section of a tree.

Experience with manufactured boards (plywood, laminated boards, etc.) veneers and inlay, and natural and synthetic materials (adhesives, paints, stains, etc.) associated with the craft.

Tools : Knowledge of common hand tools used for holding, marking, cutting, scraping, finishing, and jointing timber. The care of such tools, and the maintenance of edge tools excluding saws.

Safety : Candidates must be aware of the common sense precautions normally taught in the school workshops.

Practical Test

At a suitable time before the examinations schools will be supplied with pictorial sketches and lists of materials. Candidates will choose one test piece from these sketches.

A minimum of three tests will be offered and each test will be capable of completion in $2\frac{1}{2}$ hours by a candidate who might be regarded as of sufficient ability to obtain a Grade I pass, but three hours will be allowed plus 10 minutes pre-view of the paper.

Before the examination candidates will be required to prepare their materials from the lists provided, the type of timber to be used being specified by the examiner. The working drawings will include a pictorial view of the object to be made.

No files, glasspaper or power machinery may be used.

The parts of an exercise should be assembled, in accordance with the instructions.

The candidate should be familiar with the following joints and their application to constructional work. Through, stopped and haunched mortice and tenon joints; through and stopped housing joints; halving joints; bridle joints; common dovetail; lap dovetail joints; the use of screws and nails.

Simple curved work, grooving and chamfering may be included.

Course Work

Candidates should have experience in the normal processes as practised in the school workshop. The work should reflect the full application of woodwork in schools. No bias will be looked upon as more important than another. Experimental work such as personal studies may be included.

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YELLOW SHELF *Under Tudor Rulers* 7s 0d

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HISTORY

	<i>Marks</i>
<i>One paper of 2 to 2½ hours duration, plus 15 minutes' reading time</i>	80%
<i>Special study</i>	20%

Schools may select any ONE of the four syllabuses, viz ;

- A. Early Man to c.1714.
- B. The Development of Modern Britain since c.1700.
- C. The British Commonwealth ; c.1500 to present day.
- D. Modern History : 1870 to present day.

Each syllabus is divided into a number of topics and these are divided into sub-sections purely for the guidance of teachers and to give some indication of the matters on which examination questions will be set. In no way are they to be regarded as exhaustive sections complete in themselves, to which pupils can restrict their study. We hope to encourage as wide a range of work and reading as possible. It is hoped that the syllabuses will meet the needs of school courses based on different methods of approach. It is also hoped that where local material is available it will be used. The syllabuses are designed to provide a comprehensive series of topics from which teachers can make their own selection. It is not intended that all topics should be covered by any school.

Separate examination papers will be set on each syllabus. Candidates may answer questions from any part of the paper. In Syllabuses A, B and D, three questions will generally be set per topic and in Syllabus C normally two questions. Schools must be particularly careful to specify the correct syllabus on the examination entry form.

Each examination paper will be nominally of two hours' duration. 15 minutes will be allowed for the paper to be read through and it is presumed that the invigilator will go through the instructions with the candidates. If any candidates require more time to finish the paper, then an extra 30 minutes may be allowed. The aim of this is to allow candidates sufficient time to finish the papers without undue pressure of time. It is proposed that this should be experimental in the first place. Candidates will have to answer five questions. All questions will have an equal value in marks. In all the syllabuses there is scope for time charts, drawings, diagrams, maps and illustrations of various kinds and credit will be given where these are relevant.

Special Study. For the guidance of teachers, Memorandum No. 4 has been prepared and circulated to schools. The internal assessments of work will be submitted to the Board on a form provided for the purpose and should normally be available at the beginning of the summer term.

Syllabus A

Early Man to c.1714

The syllabus is arranged in such a way that the teacher may concentrate on a chronological period of history or on a series of topics.

1.—*Early Men.* The stone, bronze and iron ages; men and their tools; from huntsmen to herdsmen and farmer; Stonehenge and Wessex culture; iron age forts; civilization in the Nile and Euphrates valleys; sphinx and pyramid; measurement and mathematics.

2.—*Greek and Roman Civilizations.* Homer and Troy; Greece against Persia; the splendour of Greece – science, architecture, drama, sport, the city states. The legend of the foundation of Rome; Rome against Carthage; Julius Caesar and the end of the Republic; the Empire – its extent, laws, government and cities.

3.—*Roman Britain.* The Roman conquest and British resistance; the druids and the tribal organization and areas; Roman roads, towns, legions, and walls; agriculture and the villas; Roman religion – pagan then Christian.

4.—*The Beginning of the English Nation.* The Anglo-Saxon invasion; Saxon settlements, 'ton', 'ham' and 'burh'; thane, carl and slave; witan, shire and hundred; the Heptarchy; the struggle for supremacy – Northumbria, Mercia, then Wessex; Anglo-Saxon agriculture; dress and daily living.

5.—*The Re-conversion of the British Isles to Christianity.* Anglo-Saxon gods and the days of the week; St. Patrick, St. Colomba, St. Aidan, St. Augustine; Iona and Lindisfarne; Celtic and Roman Christianity and the Synod of Whitby; Bede and the History; St. Dunstan.

6.—*King Alfred and the Vikings.* Viking ships, weapons and voyages; routes of their invasions of England; the causes of the English defeats; King Alfred and Wessex; defeat of the Danes and the establishment of the Danelaw; Alfred's legacy – Anglo-Saxon Chronicle, re-organization of the Fyrd; the reconquest of the Danelaw by Edward and Athelstan; Canute and the Danish interlude.

7.—*Norman England*. The events of 1066 A.D.; claimants to the throne; Stamford Bridge and Hastings; Bayeux Tapestry; the English resistance to William; the castle: motte and bailey, stone keep and later developments; Feudalism, lord and vassal; Domesday Book; effect of the conquest on language, law and religion. Architecture.

8.—*Church and State*. Courts – king's, baronial, church; trial by ordeal and trial by jury; sanctuary and church restraint on cruel punishments; Henry II and Thomas A'Becket; Magna Carta; Simon de Montfort and the growth of parliament; the unstable monarchy; Richard II to Richard III.

9.—*Medieval Farming*. The manor and the open fields; how they were farmed and controlled; daily life of a manor and its village; feudal incidents; mills and milling; the dress and homes of the villagers; the effects of the Black Death on agriculture; the Peasants' Revolt, 1381.

10.—*Towns and Trade*. Town incorporation, charters and local government; guilds and apprentices; markets and fairs; travel and roads; the wool and cloth trade; Cistercian monks and Flemish weavers; the results of the crusades; Marco Polo and his travels.

11.—*Mediaeval Religion and Ideas*. Monasticism – the Orders; plan of a monastery, daily life of a monk, the hierarchy of the church; church architecture and the mason's craft; penance and pilgrimage; the friars – St. Francis and St. Dominic; the growth of Islam and the Crusades; learning and the monks and friars; the universities and Roger Bacon; Wycliffe's Bible and the Lollards; Chaucer, Langland, and Wycliffe; the growth of the use of English.

12.—*Mediaeval Warfare*. Spears and pikes; crossbow and cannon; armour and its development; how castles were attacked. Edward I against Wales and Scotland; concentric castles; Edward III and France; the causes of the French wars; the campaigns of the Black Prince and Henry V; Joan of Arc.

13.—*The Reformation*. Wycliffe's Bible and the Lollards. The Renaissance; the reformation in Germany – Luther. Henry VIII and Wolsey; dissolution of the monasteries; Prayer Book and the English Bible; Mary and counter-reformation; the Elizabethan church settlement.

14.—*Geographical Discoveries*. Improvement of ships and navigation. Spanish and Portuguese voyages. Cabot. English rivalry with Spain and Portugal. Muscovy Company, Frobisher, Hawkins, Drake, Raleigh. Settlements in America-Virginia, Pilgrim Fathers, William Penn, Hudson. Settlements in the east – East India Company and its trade.

15.—*Tudor and Elizabethan England*. Changes in agriculture; enclosures; displacement of workers; the Poor Law. Economic changes; coinage; the trading and joint stock companies, the East India Company. Regulation of trade and industry. Theatre, music, poetry, education, architecture; social life and dress. Rivalry with Spain – the Armada.

16.—*Crown and Parliament*. Development of Tudor and Elizabethan monarchy; catholic and puritan in Elizabeth's reign; puritanism and divine right; cause of Civil War; reasons for Parliament's success; Oliver Cromwell and the Commonwealth. (N.B. Details of campaigns in the Civil War not required.)

17.—*The Later Stuarts*. Early career of Charles II; escape after the battle of Worcester; the Restoration Settlement; penal code against Nonconformists; Bunyan. Social background of period: Wren, Plague and Fire; Whigs and Tories; the Revolution and the Revolution Settlement.

18.—*Britain and Europe*. 1660 – 1714. The European background; French ambitions, Dutch and British resistance. The wars of Marlborough; results of the war. Cultural aspects of the period; literature, architecture. Advance of science in 17th century. The Act of Union. The antecedents of the Agrarian and Industrial Revolution.

Syllabus B.

The Development of Great Britain and of the Main Powers since c.1700

This is intended to cover the economic, social and political development of Great Britain, together with an outline of the history of Europe, the U.S.A., and, in the most recent period, Asia and Africa, which affects international relations. The outlines set out below are given as a general guide and should not be used as a scheme of work. The content is set out under topics, each of which covers a particular development over the whole period or a large part of it, and it is hoped that it will meet the needs of many school courses planned on other lines. Minimum examination requirements may be met by a knowledge of the content of five topics, and it is obviously not intended that the whole syllabus should be studied.

1.—*Industrial developments*. 18th to 19th century changes in iron and steel, textiles, mining, pottery, water, steam and electric power; cheap steel, man-made materials and fibres, light industries and mass production in the 20th century.

2.—*Transport and communications*. Roads, canals, railways, steamships and iron ships; motors and aircraft, transport problems of today. The development of postal, telegraph and cable, telephone and wireless communications.

3.—*Agriculture*. 18th century improvements and enclosures, 'high farming' c.1850-70 as a result of improved methods and organization, late 19th century depression, 20th century developments – fertilizers, mechanization.

4.—*General social and economic developments*. Population growth: possible causes, changes in distribution, the development of industrial areas, Great Britain as predominantly an industrial society by c.1850, problems in the 20th century. Free Trade, "The Workshop of the World," foreign competition, the Balance of Trade and the effects of two World Wars, the abandonment of Free Trade and the importance of exports.

5.—*Social and Industrial Reforms*. Industrial, urban and rural conditions in the early 19th century. Reforms in most fields, the part of individuals, of legislation, of local administration. 20th century reforms before and after 1914-18, and since 1945, from State Socialism to the concept of the Welfare State.

6.—*Medicine, Surgery and Public Health*. Conditions in the 18th and early 19th centuries, advances in practice, vaccination, antiseptics, anaesthetics, hospitals and nursing; advances in knowledge, the germ theory, preventive medicine, drugs, penicillin. Public Health measures from 1848 to the present.

7.—*Social life*. Architecture and housing – Georgian, Regency, Victorian and since, working class housing to today. The clothes of the fashionable and well-to-do and of the many, the effects of mass production and new fabrics. Diet – the effects of improved communications, canning and refrigeration. Leisure and amusements – effects of improved communications, the press, cinema, radio, television.

8.—*Parliament and politics*. Parliament before 1832, extension of the franchise and redistribution, the Ballot Act, the House of Lords in the 20th century. Political parties – from toryism to Conservatism, from Whiggism to Liberalism, Trade Unionism and the rise of the Labour Party. Local government – the establishment of elected councils.

9.—*From Empire to Commonwealth*. The Old Empire – N. America to 1763, the East India Co., the West Indies; Canada, Australia and New Zealand, and South Africa in outline to dominion status, India and the Mutiny, Britain's share in the Partition of Africa, all in outline; developments since 1918 – the Statute of Westminster – and since 1945 – the new dominions in the Commonwealth.

10.—*The U.S.A. in the 18th and 19th centuries*. Background and course of the War of Independence, outlines of the Constitution, attitude to Europe, Westward expansion and Jacksonian democracy, slavery and the Civil War, further advance to the West, the rise of industry and the Trusts, the end of the frontier – and of isolation.

11.—*The French Revolution*. Causes, ideals and course. The career of Napoleon I, its effects on Europe – and on France. Great Britain's part in the wars.

12.—*International relations 1815–1914.* The Settlement of Vienna and the Congress System, effects of the revolutions of 1830 and 1848, Napoleon III, the unification of Italy and Germany; Bismarck and the Triple Alliance, effects of Imperialism, William I, crises to 1914.

13.—*World War I.* Events in outline without details of engagements, e.g. why trench warfare developed and something of its nature, but not details of the Somme; the importance of sea power, blockade, U-boats but not details of Jutland; broad reasons for Allied success. Effects on Britain, e.g. Coalition government, rationing, status of women. Some wider consequences – Russian Revolution and the U.S.S.R., Versailles and new nations, dictatorships, Mussolini and Hitler.

14.—*World War II.* The crises of the Thirties; the course of the war in broad outline cf. 1914-18; outline of subsequent events – United Nations cf. League of Nations, “cold war” and division of Europe; main developments in Far East, S.E. Asia and Africa.

15.—A study of ONE of the following:

Africa from c.1870. Motives for the partition, events, before and after Berlin '84-5, Leopold and the Congo, the French in W. and Central Africa, the British in the South and the Nile valley, Abyssinia; the colonial phase including the effects of the 1914-18 War; World War II and developments to the present: the ex-French empire, Ghana, Nigeria, Kenya, Central Africa, South Africa, Egypt; pan-African movements.

The Far East in the 20th century. Contrasting attitudes of China and Japan to Western influence—the transformation of Japan, war with China, Western interests and the “open door,” the Russo-Japanese War, the last phase of the Manchu and the Chinese Revolution. The effects of World War I in the Far East. Japanese imperialism, Manchuria, war from 1937, World War II, Chiang Kai-Shek and the Communists, the effects of the defeat of Japan. American interests, the Korean War, the situation now.

Russia in the 20th century. The nature of Czarist rule, revolution of 1905, Dumas, the effects of war after 1914 and the revolutions of 1917, Lenin and the establishment of the U.S.S.R., Stalin and the Five Year Plans, foreign policy to 1941, World War II and Russia as a “super-power”. Russia since 1945: internal development, government since Stalin, technological advance; external policy – the “cold war.”

The U.S.A. since 1890. The end of the frontier and the “gilded age,” the Spanish War and effects, the Progressive movement and Theodore Roosevelt. The U.S.A. and World War I, isolation, prosperity – and the depression. Franklin Roosevelt and the New Deal – and the outside world to 1941. The U.S.A. in World War II. The U.S.A. in world affairs since 1945: the “cold war,” Marshall Aid, the Truman Doctrine, NATO, the Korean War to the present day; internal problems – civil rights.

SYLLABUS C

British Commonwealth History c. 1500 to the Present Day

The syllabus is intended to cover the economic, social and political development of the Commonwealth. The topics given below are intended as a general guide only and study should not be confined exclusively to the points mentioned. It is also not intended that the syllabus should be studied chronologically. In the examination paper, at least two questions will be set on each topic. Minimum examination requirements will, therefore, be met by a study of the content of five topics, although, in a two year course, the study of seven to eight topics should be the aim of most schools.

1.—*English Society in 1500.* Town and country life; the woollen industry and trade; ships and techniques of navigation.

2.—*Voyages of Discovery in 15th and 16th Centuries.* Their effects in increasing knowledge of the world and the development of the Spanish and Portuguese empires.

3.—*English Colonies in North America.* Their development up to the American Revolution. Why the colonies were founded and why English people went to live in them. Life in the colonies, its character and how it came to differ from life at home. The differences between colonies. The development of Anglo-French rivalry up to 1763; the reason for British success in the Seven Years War.

4.—*India before 1800.* Brief introduction to political and religious background to Indian affairs in the late 16th century. Development of Eastern trade. East India Company – early English and French trading stations. Developing rivalry with French. Achievements of Robert Clive. Seven Years War. Warren Hastings – the beginnings of a responsible attitude to Indian affairs.

5.—*The American Revolution.* Reasons for colonial dissatisfaction with British rule. The Declaration of Independence. The War of American Independence. The reasons for the British loss of the colonies in this war. Its consequences in a changed attitude to Empire.

6.—*The Development of the Second British Empire.* The life and achievements of Cook; 18th century improvements in navigation. The beginnings of English settlement in Australia; convict life. Early settlement in New Zealand: Treaty of Waitangi. Gibbon Wakefield: a simple exposition of his ideas related to Australia and New Zealand. The work of Sir George Grey in Australia and New Zealand. The Durham Report as a new basis for colonial government.

7.—*Later Development of Australia and New Zealand.* Frontier life, gold rushes, bush rangers. Farming and the growth of industry. Railways. Relations with natives. White Australia and integration policies. Development of self-government and federation.

8.—*Canada from Colony to Dominion.* Canada in 1763 : Pitt's Canada Act ; Durham Report ; achievement of dominion status. Economic development: farming and railways, the fur trade and the opening of the Northern territory. Canada in the 20th century.

9.—*Effects of Industrial Change.* The reasons for emigration, the extension of imperial trade, communications, and the need for strategic bases; steamships and the Suez Canal and their importance to the Empire. The development of a new imperial attitude; Disraeli, Kipling and Joseph Chamberlain.

10.—*The British in South Africa.* European settlements to the late 19th Century. Relations with Africans. Diamonds and gold. Rhodes and the foundation of Rhodesia. Boer War and its aftermath. Modern South Africa, industrial civilization and the negro; the native policy ; apartheid.

11.—*The British in Tropical Africa.* The scramble for Africa illustrated by the foundation and development of one British territory. The growth of African nationalism; self-government and its problems: illiteracy and the consequent political problems, tribalism, single crop economics.

12.—*The British in India from 1800.* The life of the British administrators and soldiers before the Mutiny; the beginnings of westernization; reasons for the Mutiny; the effects of the Mutiny; the legacy of British rule; railways, education and famine relief. The independence movement studied through lives of Gandhi and Nehru. Problems of India since independence: population and industrialization, neutralism or commitment.

13.—*West Indies from 1650.* The importance of the West Indies in 18th century Empire; the mercantile idea; the slave trade. The life of the slave in the West Indian economy; the anti-slavery movement; the abolition of the slave trade and slavery. The collapse of the economy based on sugar; the attempts at revival; independence; modern problems leading to present West Indian emigration.

14.—*Malaya.* Pre-western society in the Malayan Archipelago; the spice trade; British and Dutch settlement. Sir Stamford Raffles and the growth of Singapore; the development of tea and rubber industries; the Chinese immigration problem; Japanese invasion and occupation. Malayan communism. Independence and federation; Malaysia and Indonesia.

Syllabus D

Modern History c.1870 – to the Present Day

Candidates may answer questions from one or both parts of the syllabus.

Part I : British Social and Economic History

1. *The Second Industrial Revolution.* Britain's industrial and trading position in the last quarter of the nineteenth century. New forms of power : oil, electricity, the atom. Industry old and new : the decline of the basic industries; mass production, automation; plastics, fibres, chemicals, electronics. The changing structure of industry.
2. *Transport and Trade.* Transport old and new: the changing shape of the railways; the motor car and the road pattern; aircraft and airways; shipping and ports. Insurance; distribution. Britain's trade position before 1914; the post-war situation; the Great Depression and government policy; the 1939 war – living on credit, American aid; exports and the exchange crises.
3. *Industry and Democracy.* The development of Trade Unions from c.1870 to 1918; the general strike and the depression and their effects on the Trade Unions; the changing nature of Unionism from the 1939 war onwards; the TUC and the shop steward. Nationalization and de-nationalization 1919 onwards; industrial control by the state. The emergence of the Labour Party, the decline of the Liberal Party; the new Conservatism.
4. *The Working Class and the Welfare State.* Changes in the working population; its social structure; its opportunities and living conditions. The welfare state : the concept and its beginnings; Lloyd George and Beveridge; the legislation of the 1940's; National Insurance and National Health; equality by taxation. Developments in medical science.
5. *Farming and Food.* The decline of arable farming due to foreign competition and its consequences; milk and market gardening; the growth of government support; mechanization and changes in crop and stock. Improvements in diet : scientific knowledge, higher standards of living, governmental control. Changes in the pattern of wholesale and retail distribution.
6. *The Changed Pattern of Living.* Changes in dress : materials, fashion and status. Developments in architecture and town planning. Religion. Leisure and pleasure: mass entertainment, radio, TV, the Press, organized sport, literature, drama and music.

7. *Educational Opportunity and Attitudes to Children.* Development of primary and secondary education; the changing structure of the post-war period. University, technical and adult education. Treatment of children in need of care; the Courts. Children in society.
8. *Social change for women.* The differing status of women in Edwardian England; the Suffragettes. The extension of the franchise; the opening of the professions and improved education. The post-war status of women at work and in the home.

Part II : World Affairs

1. *The Legacy of the 19th Century.* The world pre-1914; rivalries in Europe; world empires.
2. *The Nature and Effects of the 1914-1918 War.* General outline of the course of the war; changes in methods of warfare; (no detailed military history). Outline of the peace settlement.
3. *The Rise of the Dictators.* Hitler, Mussolini, and Franco.
4. *The League of Nations.* Shortcomings and successes; defiance by the Dictators. The drift to war; Berlin – Rome – Tokyo Axis.
5. *The Rise of Russia.* Marx and the communist ideal; Lenin and the 1917 revolution; Stalin and the Five Year Plans; Russian role in the 1939 war. Russian strength after the war.
6. *The Rise of the USA.* The development of population and industrial production 1900 – 1960; isolationism in the 1920's and 1930's. The Great Depression; Roosevelt and the New Deal. Pearl Harbour and the 1939 – 1945 War. The American role since the war.
7. *The Rise of the East and the End of Colonialism.* British imperialism and colonial freedom; nationalism and self-determination; other colonial empires. Gandhi, Nehru, Jinnah and the birth of India and Pakistan. China: Sun Yat Sen, Chiang Kai-Shek; the rise of Communist China to Mao Tse Tung.
8. *The New Africa and the Middle East.* East and West and Central Africa; French Africa. South Africa. Egypt and the Suez Canal; the oil kingdoms.
9. *The Cold War and the United Nations.* The atomic bomb; Hiroshima and after; the hydrogen bomb. The United Nations; the Atlantic Charter and the foundation of the United Nations; its successes and failures. Regional groupings, strategic and economic; NATO, Warsaw, SEATO; the Common Market.
10. *An Expanding Population in a Shrinking World.* Improvements in communications. The world population problem and world food supply. World health. International agencies.

HOME ECONOMICS

The syllabus will be divided into three sections :

Section I : Choosing and preparing the home

II : Running the home

III : Home-making

SECTION I. CHOOSING AND PREPARING THE HOME

Methods of purchase or renting a home. Features to look for including area, position, site, services, rent and rates. General condition of fabric. Study of wall and floor surfaces, heating and lighting, decorations and colour schemes. Furniture or major equipment. Floor coverings and soft furnishings. Advantages and disadvantages of hire-purchase.

SECTION II. RUNNING THE HOME

Feeding the family. Emphasis must be placed on the planning and serving of well-balanced family meals. The nutritional needs of the family group should be stressed and the meals studied include breakfast, lunches, dinners and evening meals. The instructions given should include all basic cooking methods and the use of convenience foods. Also special meals including packed, picnic and buffet meals, meals for toddlers, young children and convalescents. Budgeting and shopping, wise use of time and money. Personal, family and household hygiene. Laundry and laundrettes. Care and cleaning of the home. Safety precautions.

SECTION III. HOME-MAKING

Income and expenditure. Leisure in the home. Hospitality and entertaining. Importance of personal appearance and family relationships. The social services. Labour-saving devices and small equipment. Home production of food, preservation and flower decoration.

The examination will consist of three main parts :

<i>1 Practical Examination</i>	<i>Time</i>	<i>Marks</i>
Preparation sheet	1½ hours	
Preparation sheet marking :		
Interpretation of Question		9
Order of work		6
Practical	2½ hours	
Method and manipulation		25
Finished result		20
 <i>2 Theoretical Examination</i>		
Preliminary Paper	½ hour	15
Extended Theory Paper	1¼ hours	35
Each question will carry equal marks.		
 <i>3 Course Work</i>		
Folder		20
Work done during the final year		20
		150

THE PREPARATION SHEET

Two copies of this sheet must be made on a printed form on which the candidate will be asked to indicate the test being worked by number only.

The sheet will be in a tabulated form giving : details of dishes chosen for the test and ingredients; shopping list under tradesmen's headings, butcher, grocer, etc; order of work; any other information necessary.

One and a half hours will be allowed for completion of the preparation sheet which must be done three school days prior to the practical examination. Printed and personal recipe books belonging to the candidate may be used during the preparation period. Note books may not be taken in.

Rough paper should be provided for the candidates' use. All candidates must do this section of examination at the same time.

THE PRACTICAL EXAMINATION

A wide selection of varied tests will be offered from which the teacher may select those most applicable to the course followed in the school and appropriate to the ability range of the candidates entered. The method of distributing the tests chosen, i.e. alphabetically, by a 'draw' or directly to individuals according to ability and aptitudes, is a matter for the discretion of the teacher concerned. This examination is planned to give equal opportunities to candidates of a wide ability range in order to give a graded result, not pass or fail, and if we are to succeed in our object it is essential that candidates attempt practical work at their own level.

A one-hour period for the teacher to allocate the tests will be allowed immediately prior to the time for completion of the preparation sheet.

The practical test will be based on Section II of the syllabus and the time allowed will be two and a half hours. Practical tests should be representative of Section II as a whole, and not more than two candidates should attempt the same test.

The examination will be supervised by an external examiner who may test the candidates orally on the work being done during the practical examination. Recipe books may be used during the examination and schools will make own arrangements for the provision of ingredients. Candidates may be admitted to the examination room 15 minutes before the start of the examination, for the collection of equipment only.

Maximum number of candidates to be tested at any one time – 10.

THEORY PAPER ONE

This paper consists of thirty short questions of a general nature covering the whole syllabus. Very brief answers, in some cases only one word or a simple sketch, will be required. It is not expected that candidates will be able to answer the full paper. The overall result will assist in assessing results. The answers will be entered on the question paper. At the end of the thirty minute period the papers will be collected.

THEORY PAPER TWO

One paper of $1\frac{1}{4}$ hours, of which the first 15 minutes will be allowed for studying the questions. Questions will be set under the three sections defined in the syllabus. There will be three questions in each section and candidates will be expected to answer three questions in the time allowed. Questions must be answered from at least *two* sections. The examination will last one hour.

COURSE WORK

This will consist of two parts.

- (i) A folder containing a written paper supported by illustrative material. This will have been assessed by the teachers and should be available for inspection by the external examiner at the time of the practical examination. The folder may be handwritten or typed by the candidate.
- (ii) An assessment of the candidate's work during the final year of the course.

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MATHEMATICS

2 papers each of $1\frac{1}{2}$ to $2\frac{1}{2}$ hours duration

Each paper will be designed to take $1\frac{1}{2}$ hours but candidates may take up to $2\frac{1}{2}$ hours if they wish.

Paper 1 will be set on the general syllabus as detailed in Appendix 1, without choice of questions, and will carry 50 per cent of the total marks.

Paper 2 will be in five sections as defined in Appendix 2. Candidates will be allowed a choice of questions but schools are advised to direct their candidates' attention to the sections appropriate to their course. Full marks (40 per cent of the total) may be obtained by answering six questions.

The General and Modern Mathematics sections will each contain six questions. The remaining sections will each contain four questions. Candidates will be permitted to use books of mathematical tables, constants and formulae, and ready reckoners. The use of slide rules will also be allowed.

Teachers' assessments. Teachers' assessments of candidates' work will constitute up to a maximum of 10 per cent of the examination total.

Syllabus

1.—*THE COUNTING NUMBERS.* The numerals: the symbol for zero, and its use as a place holder: numbers written in the scale of ten: other scales of notation as exemplified by British monetary system and system of weights and measures: the metric system as an example of a practical system of weights and measures employing the scale of ten: numbers written in other scales, e.g. the binary scale.

Combining numbers: the addition tables and multiplication tables: the repeating patterns associated with these tables.

Easy computation involving the usual processes as applied to practical situations and to problems of a practical nature: in this work the commutative, associative and distributive laws will be used unconsciously at first, leaving their more precise formulation until a later stage.

Extensions of the number system: the introduction, as the need arises, of fractions (both common and decimal), and of negative numbers.

Index notation: the convenience of expressing numbers in this form.

2.—*FUNDAMENTAL IDEAS ABOUT SHAPE.* The recognition of shapes in two and three dimensions: shapes that can be drawn, and shapes that can be constructed: shapes that arise from moving points (loci) and moving lines (envelopes): tessellations (use of geometrical shapes which fit and cover a surface).

The analysis of shapes: sides and angles: faces, edges and vertices of solids: curved lines and surfaces: properties of shapes in two and three dimensions, including volume and area (memorization of formulae not required).

Direction and change of direction : bearings : the fixing of position : simple problems solved by drawing to scale (vectors, co-ordinates).

Similar figures and solids (treating congruence as a special case).

Symmetry.

3.—*RELATIONSHIPS*. Use of fractions for purposes of comparison : ratio, proportion, percentage.

Graphical representation; statistical data. Diagrams revealing pattern : one important example is the straight line obtained when equivalent fractions are shown on the same diagram : by a suitable choice of points this same line can indicate decimal and percentage equivalents : non-linear patterns will also arise, for instance from relating the sides and areas of squares or from plotting numbers against their reciprocals.

Recognition and statement of relationships, in general or symbolic terms : functions and formulae : derivation of simple formulae : dependent and independent variables : identity : at this point it may seem valuable to have practice in the manipulation of algebraic symbols, noting similarities with the processes of arithmetic and any new conventions such as the use of brackets, directed numbers, and the juxtapositions of numbers and symbols.

Inequalities as shown by the sections of a graphical diagram in which the represented function bears values greater or less than specified values.

The equation : linear, linear simultaneous, and quadratic, with algebraic and graphical solutions.

Other characteristics of a function that can be obtained from its graph, e.g. its rate of change and turning values; the significance of gradient and of 'area under the graph' (e.g. velocity/time graph, area under curve represents distance).

Logarithms : while at first sight these may appear to constitute an isolated topic, their significance and use may well be developed by considering the relationships, especially when depicted graphically, between a number and the index when it is expressed as the power of a given base.

4.—*FURTHER DEVELOPMENTS OF SHAPE*. Memorization of formulae will not be required. Special importance of the right-angled triangle : use of square and square root tables : irrational numbers.

Similar triangles and constant ratios, leading to the beginning of trigonometry.

Angles and their trigonometrical ratios, and the solution of the general triangle.

5.—*MODERN MATHEMATICS*.

6.—*STATISTICS AND PROBABILITY*.

7.—*HISTORY OF MATHEMATICS*.

8.—*FURTHER NAVIGATION AND SURVEYING*.

Appendix 1

This appendix sets out in more detail the ground to be covered by Paper 1.

1.—*THE COUNTING NUMBERS*. Application of the four rules to common and useful weights and measures.

Vulgar, decimal and percentage fractions and ratios in common use.

An understanding of the binary scale will be required but computing skills such as multiplication or division will not be examined.

In solutions to problems on averages, ratios, proportion and proportional parts, domestic monetary matters, percentages, profit and loss, and simple interest, full use of ready reckoners will be permitted, including decimalisation of money, weights and measures.

An understanding of approximations, decimal places, significant figures, and standard form will be expected, in particular when using four-figure reciprocal, square, square root, logarithm, and trigonometrical ratio, tan., sin., cos. tables. Use of logarithmic-trigonometrical tables will not be necessary.

Facility in the use of tables of information will be required and appropriate extracts will be supplied in the examination if needed, e.g. 'bus or railway timetables, tide tables, etc.

2.—*FUNDAMENTAL IDEAS ABOUT SHAPES*. Questions on the properties of two-dimensional shapes will be limited to those of triangles, quadrilaterals and circles, and the angle properties of polygons, but questions may be asked about other two-dimensional shapes without calling for a knowledge of their properties. Proof of theorems will not be called for but it is expected that candidates will be able to deduce properties by symmetry (mirror reflections or rotations) and translations. Area derived from $\frac{1}{2}ab \sin C$ or $\sqrt{s(s-a)(s-b)(s-c)}$ will not be required.

Questions on three-dimensional shapes will not call for any properties beyond surface area or volume.

Problems may be set requiring scale drawings. Questions will not compel ruler and compass constructions for loci (e.g. angle bisectors; line bisectors; altitudes; tangents to circles; ellipse, parabola and hyperbola). It is expected that candidates will be familiar with the shapes and simple properties that arise from loci, envelopes and tessellations through experience gained by any of these methods: drawing, curve stitching, paper folding, tracing paper, elastic bands and nailboards, or models.

3.—*RELATIONSHIPS*. Graph paper rulings of $\frac{1}{4}$ in. or $\frac{1}{16}$ in. only will be used but candidates may be expected to make a circular diagram (pie chart).

Gradients of, and area under straight line graphs only will be required. Graphical solution of the quadratic equation will include only the auxiliary line $y = 0$.

Only simple manipulation of algebraic expressions will be required in the treatment of the following : simplification of expressions, including brackets and fractions; substitutions; expansions; factorizations; positive and negative indices; simple formulae and their transformation; identities; simple equations and problems in one or two unknowns, quadratic equations by factors only.

Solution of equations by numerical methods will be accepted.

4.—*FURTHER DEVELOPMENTS OF SHAPE*. Only two-dimensional applications of Pythagoras' Theorem will be set.

The cosecant, secant and cotangent ratios, the trigonometrical ratios of angles greater than 90° , the sine and cosine rules will not be examined.

Note: The following sections of the syllabus will not be included in Paper 1 except that numerical methods may be used for solving equations: *Modern Mathematics*; *Statistics and Probability*; *History of Mathematics*; *Further Navigation and Surveying*.

Appendix 2

This appendix shows in detail the items to be covered in Paper 2, which will contain five sections, viz :

- 1.—*General Mathematics*
- 2.—*Modern Mathematics*
- 3.—*History of Mathematics*
- 4.—*Money Management and Statistics*
- 5.—*Navigation and Surveying*

1.—*GENERAL MATHEMATICS*. Candidates will be examined further on the content of Appendix 1 together with the following :

Integral and fractional indices, positive and negative.

$$\begin{aligned} & \text{(e.g. } 2.34 \times 10^3, 8.76 \times 10^{-4}; \\ & (6.24)^{\frac{2}{3}} \text{ i.e. } \sqrt[3]{(6.24)^2} \end{aligned}$$

Areas and volumes of irregular and composite figures; congruency, similar plane figures and solids, linear, area and volume ratios.

Problems on plane or solid figures requiring trigonometrical solution in one plane; the sine and cosine rule, the area formulae $\Delta = \frac{1}{2}bc \sin A$ and $\Delta = \sqrt{s(s-a)(s-b)(s-c)}$.

Numerical problems requiring the knowledge of the properties of chords and angle properties of the circle; properties of tangents; drawing of loci.

Lengths of arcs, and areas of sectors.

Solving of quadratic equations by factors, completing the square, formula or graph.

Inequalities and other characteristics of the graph that can be obtained.

Rate of change and turning values by determination of gradients.

Area under the curve, as in velocity/time graph, by counting squares, etc.

Formal calculus methods not required but may be used.

Determination of linear equations from graphical data.

2.—*MODERN MATHEMATICS. Computation Theory.* Types of calculating machines. Place value in numbers. The binary system in computing. The use of number bases other than denary and simple manipulation of four rules in these systems. The unsuitability of Roman and other numerals. The compilation of computation sheets for the evaluation of functions for different values of the variables, e.g. quadratic equations. Iteration.

Modern Algebra. Basic Set Theory. Finite and empty sets. Equivalence. Sub-sets. Describing sets. Union. Intersection. Venn diagrams. Applications with non-numerical elements, e.g. sets of people.

Inequalities. The signs used. Description of everyday facts in terms of inequalities. Representation by graphs. Linear programming. Number theory. Rational, irrational and simple treatment of unreal numbers. Finite arithmetics and isomorphisms. Simple determinants and application to simple simultaneous equations.

Co-ordinate Geometry. Location of a point by a number pair. Distance between two points. Equation of a line ($y = mx + c$). Areas of simple rectilinear figures. The tangent as a limiting case of a chord. Speed/time graph and its use to find acceleration and distance travelled.

Modern Geometry. Simple properties of geometrical shapes by translations, rotations and reflections. Formation of simple multiplication tables of operations.

Vectors. The operations of addition, subtraction and scalar multiplication on directed line segments.

If desk calculators are available the following course work should be undertaken : simple application of the four rules, place value in number, short cutting, back transfer etc, sequence of operations, combined operations by machines, solution of simultaneous, linear and other equations.

3.—*HISTORY OF MATHEMATICS. A History of Numbers.* Growth of number systems e.g. Babylonian, Egyptian, Greek, Roman. Development of our number system — the Hindu-Arabic numbers.

Introduction of place value and zero.

Methods of calculation : fingers and toes, the abacus, Egyptian method of 'duplation', etc.

Mathematics developed from practical needs. Land measurement and building : Egypt, the Nile, The Pyramids, Ahmes' or Rhind Papyrus.

Measurement of time : the seasons, the day, calendars.

Measurement of direction : the stars, shadow stick, etc.

Early trading : development from barter to money systems, weights and measures and tally sticks.

Derivation of our commoner units of money, weights and measures.

Evolution of mathematical ideas : great mathematicians. Geometrical discoveries and method, Thales, Pythagoras, Euclid, Apollonius. Area of circle, history of π , Archimedes, Newton, and others. Earth measurement, Eratosthenes. Beginnings of trigonometry, Hipparchus and Ptolemy. Spread of mathematics to the West, from India via Arabia to Europe. The Renaissance. Development of mathematical symbols such

as $+$, $-$, \times , \div , $=$. Navigation and astronomy : the astrolabe, the compass, the telescope, direction finding, Galileo, Kepler.

Multiplication of numbers; logarithms, Napier.

Graphical work, Descartes.

Later developments in mathematics. (a) First Industrial Revolution. Scientific and industrial progress affecting mathematics, e.g. units of power, Boulton and Watt. Need for precise measurement, accurate recording, etc.

(b) Second Industrial Revolution. Accountancy, statistics, applied mathematics in design of cars, aeroplanes, engines, etc. Electronics—computers. Links with other sciences.

Emphasis should be placed on mathematical ideas rather than on dates and biographical details.

4.—*MONEY MANAGEMENT AND STATISTICS.* *Management of Money.* Income Tax; rateable values; bankruptcy; hire purchase; house purchase; mortgages; insurance; budgets, including savings; wages and deductions; simple and compound interest with simple numbers; gain and loss per cent; stocks and shares.

Statistics. Graphical representation and interpretation of information. Bar diagrams, histograms, pie charts, pictograms, continuous curves. Scatter diagrams.

Average, mode and median. Simple dispersion and standard deviation.

Simple experimental probabilities leading to Pascal's triangle and other simple binomial distributions, dice, coins etc. Sampling.

Very simple permutations and combinations.

5.—*NAVIGATION AND SURVEYING.* *Navigation.* Latitude and longitude : calculation of distance between two places of same latitude or same longitude.

True, magnetic and compass bearings.

Statute and nautical miles. Conversions, distance scale is a variable one.

Scale drawings and calculations involving such terms as : course and air speed, track and ground speed, wind velocity, etc.

Triangle and parallelogram of velocities.

Surveying. Triangulation.

Chain line and offset surveys. Use of field note book. Calculation of area involved. (Right-angled triangle, trapezium, mid-ordinate rule).

Plane tabling : simple surveys—radial and base line methods. Simple levelling and contouring, e.g. gradient of a road. Indirect measurement of height and distance. Calculation involving trigonometrical ratios, sine, cosine, tangent. Sine and cosine rules.

Traversing : closed and open. Use of prismatic compass and theodolite.

Correction of closed traverse.

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MODERN LANGUAGES
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<i>Paper</i>	<i>Test</i>	<i>Duration Minutes</i>	<i>Marks per cent</i>
1 (a)	Aural	45	15
(b)	Free Composition	45	20
2 (a)	Dictation	30	10
(b)	Comprehension	60	30
3 (a)	Reading	15	10
(b)	Conversation		

Paper 1.

SECTION (a). The aural test will consist of two short passages of prose, the second slightly more difficult than the first. There will be five or more questions in English based on each passage and they will be answered in English. Each passage will be read three times in all.

SECTION (b). The free composition will be based on a set of pictures or on a selected topic and about 120 words will be asked for. High marks can be gained only if the appropriate tenses are used.

Paper 2.

SECTION (a). In marking the dictation (about 100 words) it is assumed that examiners will award marks for correct work and that they will not work on the 'mark off for every mistake' principle.

SECTION (b). Three passages of prose will be set. The questions and answers to two of the passages will be given in the foreign language and to the third in English. Answers must be in the form of complete sentences.

Paper 3.

SECTION (a). The reading passage will be approximately 100 words in length. Candidates will be given five minutes to prepare the passage before being asked to read it. In addition to this passage candidates will be asked to read or recite a short passage of prose or poetry of their own choice previously prepared.

SECTION (b). Conversation will be based on situations illustrated in a picture. The examiner may also ask general questions not necessarily related to the picture.

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MUSIC

The examination will consist of a written paper of 2 hours duration and practical tests of performance, aural work and sight reading.

Practical tests will be supervised by a visiting examiner either at the school itself or, in the case of small numbers, at a convenient centre.

The questions will give the candidates an opportunity of expressing their own musical experience and opinions, derived from their own concert-going, listening and reading. The allocation of marks will be as follows :

Performance	35%
Sight-reading	10%
Aural	20%
Written	35%

Schools will be asked to furnish details of the candidates' contributions to school music, and of any project work, outstanding musical interest or performance, which they may have achieved.

1.—Candidates must perform one item of their own choice, either vocal or instrumental. They will be expected to give reasons for their choice, and *EITHER*

(a) sing two set songs,

OR

(b) play two set pieces on any of the following instruments—piano, organ, recorder, guitar, harmonica, piano accordion, or any orchestral or brass band instrument,

OR

(c) present one instrumental and one vocal piece.

Marks will be awarded for general musicianship with due regard to rhythm, intonation, phrasing, marks of expression, interpretation and choice of music where no set music is prescribed. (Candidates who play two instruments, or who play an instrument and sing, will be given credit by the examiner).

Candidates will be judged by the enthusiasm and enjoyment brought to the performance, as well as by the technical standard achieved.

2.—Candidates will be required to read at sight three short pieces of progressive difficulty, either vocally or instrumentally, according to their choice.

3.—Candidates will be required to

- (a) distinguish which of two notes played consecutively is the higher or lower;
- (b) name any diatonic interval played by the examiner. (Only major or perfect intervals will be used);
- (c) state the number of notes in any chord of up to four notes;

- (d) recognize duple, triple or quadruple time in a short piece played by the examiner, to beat time to the passage, giving a clear indication of the accent in the music, and to say whether the piece is in simple or compound time;
- (e) write three pieces of dictation :
 - (i) rhythm alone (ii) pitch alone (iii) combination of rhythm and pitch;
- (f) recognize major or minor key in a passage played;
- (g) identify a solo instrument and the instrumentation used in given orchestral passages.

4.—Candidates will be required to match given words to simple melody provided by the examiner and to set selected words to a simple melody of their own creation.

5.—Candidates will be expected to know

- (a) the meaning of the following terms :
folk song; hymn; binary and ternary form; suite; minuet and trio; sonata; air and variation; symphony; chamber music; concerto; opera; oratorio; overture; ballet; programme music. (Detailed knowledge will not be required).
- (b) the more usual terms used by composers to convey their intention to the performer;
- (c) the main characteristics of :
keyboard, orchestral or band (including jazz and modern group) instruments in current use.

6.—Candidates will be required to make themselves familiar with the following works so that they can

- (a) recognize the work and composer from passages played either on the piano or on a gramophone record;
- (b) place these works in chronological order and relate them to the manners and customs of their period.

They will also be expected to name some other well-known works by the same composers, which will show the scope of the composer's contribution to music. The works should provide substantial illustration for the work prescribed in Section 5 of the Syllabus, supplemented by the general musical experience of the school.

List of selected pieces

NOTE.—Candidates will be expected to make a more detailed study of either of the two starred works (i.e. 12(b) or 15) below.

- 1.—All Thro' The Night
- 2.—Johnny Come Down to Hilo
- 3.—Deep River
- 4.—Hark The Echoing Air : Purcell
- 5.—For All The Saints : Vaughan Williams
- 6.—Carol : Come to Bethlehem : Capriol Suite
- 7.—The Silver Swan : Gibbons
- 8.—Organ Toccata and Fugue in D Minor : Bach
- 9.—(a) Water Music Suite : Handel (arr. Hamilton Harty)

- (i) Allegro; (ii) Air in F; (iii) Bourrée and Hornpipe; (iv) Adante Espressivo; (v) Allegro Deciso
- (b) Messiah (i) Recit. No. 50 : Behold I tell you
(ii) Aria. No. 51 : The Trumpet Shall Sound
(iii) Chor. No. 52 : Worthy Is The Lamb
- 10.—Symphony No. 94 in G : The Surprise : Haydn. 3rd Movement
- 11.—Concerto No. 4 in E \flat : Mozart. Rondo from Horn Concerto K.495
- 12.—(a) Sonata Pathétique, in C Minor. op.13, No. 8 : Beethoven
*(b) Symphony No. 5 : Beethoven (*For special study*)
- 13.—Song : The Trout : Schubert
Quintet in A \flat Major : Schubert. op.114, 4th movement
- 14.—Grande Valse Brillante in E \flat for Piano : Chopin and orchestral arrangement in the ballet 'Les Sylphides'
- 15.—*Danse Macabre : Saint Saëns (*For special study*)
- 16.—Rigoletto : Verdi
(i) Quartet; (ii) Caro Nome; (iii) La Donna e Mobile
- 17.—Flying Dutchman : Wagner. Overture
- 18.—The Sorcerer's Apprentice : Dukas
- 19.—Symphony in E Minor, No. 9 : The New World : Dvorak.
2nd movement only
- 20.—Nimrod (Enigma Variations) : Elgar
- 21.—Planets : Holst. Jupiter and Mars
- 22.—An American in Paris : Gershwin
- 23.—Facade Suite : Walton
(i) Pop Song; (ii) Polka; (iii) Tango; (iv) Yodelling Song
- 24.—Concerto for Orchestra : Bartok. 2nd and 4th Movements
- 25.—Young Person's Guide to the Orchestra : Britten

Candidates will be expected to show some general knowledge of the contemporary musical scene, including present-day artistes, conductors, orchestras, opera and ballet companies; the great festivals of music, e.g. Three Choirs, Edinburgh, Aldeburgh, Glyndebourne, and the Henry Wood Promenade Concerts.

Set Pieces for Solo Performance

Songs (in any key suitable for the voice)

Linden Lea : Vaughan Williams

Uist Tramping Song : from "Songs of the Hebrides"

I Know a Bank : Martin Shaw

Waltzing Matilda

When Sweet Ann Sings : Michael Head

The Arethusa : William Shield

Piano

Rondo in F from Sonatina No. 6 : Beethoven (Associated Board)
Horse Riding : Gretchaninov : ed. Alex Rowley (Galliard Press)
Dream Children : Elgar (Schott)
In the Snow : Ivor Foster (J. Williams)
Meditation : Coleridge Taylor (Schott)
Gavotte : Impertinence : Handel (Schott)
Doll's Lament : César Franck (Schott)

Descant and Tenor Recorders

Gavotte : J. S. Bach. From "Seven Pieces by Classical Composers",
arr. Benoy (O.U.P.)
In My Native Land : Grieg. From "A Grieg Suite" arr. Watson Forbes
(O.U.P.)
Minuet from "Berenice" : Handel. From "Seven Pieces by Classical
Composers", arr. Benoy (O.U.P.)
Hornpipe : Handel. From "Celebrated Classics" (Schott)

Treble Recorder

Christmas Pastoral : Robin Milford (O.U.P.)
Minuet in F, No. 8 : Handel. From "Easy Dances for Treble Recorded
and Piano" (Schott)
No. 2 "Two Short Pieces" : John Stanley (O.U.P.)

Flute

Petite Marche : Handel, arr. Gambert (United Music Publishers)
Air only, "Air and Hornpipe" : Purcell (Rudall Carte and Co., c/o
Boosey and Hawkes)
Sonata No. 12 in G, 1st Movement : Marcelle (O.U.P.)
Three Airs for Treble Recorder or Flute, No. 1 : Milford (O.U.P.)

Oboe

Air from "Air and Rondo" : Handel (J. and W. Chester Ltd)
Concerto No. 3 in G Minor, 3rd Movement : Handel (Boosey and
Hawkes)
Nocturne : Field (J. and W. Chester Ltd)
Piece V : Franck (United Music Publishers)

Bassoon

Sonata No. 1 in A Minor, 1st or 3rd Movement : Galliard (Hinrichson
Ed. 753A)
No. 6 "Seven Musical Pieces" Book II. Lied : W. Hess (Hinrichson Ed.
667B)
Practical Tutor for Bassoon, Nos. 27 and 30 : Langey (Boosey and
Hawkes)
Bassoon Studies Op. 8, Vol. I page 8. No. 1 : Weissenborn (Hinrichson)

Horn

Bourée : Bach (Classical Album, Boosey and Hawkes)
Largo : Purcell (Classical Album, Boosey and Hawkes)
Larghetto : Schumann (Classical Album, Boosey and Hawkes)
No. 26 Barcarolle from "A Tune A Day" : Herfurth and Miller
(Chappell)

Piano Accordion and Guitar

Any of the following songs from "The Oxford Song Book". The melody must be played together with any suitable and musically correct harmonic support :

No. 1 All Thro' The Night
No. 6 The Ash Grove
No. 28 Cockles and Mussels
No. 56 Pretty Polly Oliver

Clarinet

Section A

Chanson from "Seven Simple Pieces" (Forsyth)
Powder and Patches from "Seven Simple Pieces" (Forsyth)

Section B

Minuet from "Berenice" : Handel (Young Clarinettist, Vol. II, O.U.P.)
Carol : Gerald Finzi (Five Bagatelles, Boosey and Hawkes)
(One from section A and one from section B)

BRASS INSTRUMENTS

Cornet—Trumpet B \flat

The Ash Grove : (The Young Trumpeter, Vol. I, O.U.P.)
A Safe Stronghold : (The Young Trumpeter, Vol. I, O.U.P.)
Trumpet Tune from "Indian Queen" : H. Purcell (The Young Trumpeter, Vol. II, O.U.P.)
March from "Occasional Oratorio" : Handel (The Young Trumpeter, Vol. II, O.U.P.)
Andante from "Water Music" : Handel (Classical Album for Trumpet, Boosey and Hawkes)
The King's Hunting Jig : John Bull (Classical Album for Trumpet, Boosey and Hawkes)

Flugel Horn—E \flat Tenor Horn—French Horn

Londonderry Air : Trad. } any key, with or without
Greensleeves : Trad. } accompaniment
Little Rondo : Beethoven (Chappell)
Cornucopia, 0.95, any one : Dunhill (Boosey and Hawkes)
Slow Movement from Concerto No. 2 (K.417) : Mozart (Published by Breitkopf, available Boosey and Hawkes)
Rondo : Book (Schott)

Euphonium B♭—Baritone

Air from "The Magic Flute" : Mozart

Gaudeamus Igitur : Student Song

Santa Lucia : Italian Folk Song

Norwegian Folk Tune : Grieg

(For these pieces the Solo B♭ Cornet part in the First Band Book, Hinrichson, 542A.)

No. 4 on page 9 of Hawkes' Simplicity Tutor (Boosey and Hawkes)

Ave Maria : Bach—Gounod (Boosey and Hawkes, Album No. 1)

Trombone B♭

The Lorelei : German Folk Song

Silent Night : Austrian Carol

Ode to Joy from Symphony No. 9: Beethoven (Solo B♭ Cornet part in the First Band Book, Hinrichson, 542A.)

On Wings of Song : Mendelssohn (Trombone Solo Album No. 2, Boosey and Hawkes)

No. 2 of Eight Easy Pieces : Farnby (Chester)

Andante Funèbre in G Minor (page 53 of Langey Tutor, Boosey and Hawkes)

E♭ Bass—B♭ Bass—Tuba in F

Au Clair De La Lune : French Song

Drink to Me Only

Rousseau (Solo B♭ Cornet part in the First Band Book, Hinrichson, 542A.)

No. 2 on page 8 of Hawkes' Simplicity Tutor (Boosey and Hawkes)

Romance Bohemian : Ord Hume (Boosey and Hawkes)

Rataplan Chorus : Meyerbeer (Boosey and Hawkes)

STRINGS

Violin

Reaper's Song : Schumann, arr. Radmall (Chester)

The Toy Patrol : Kinsey

Waltz No. 4, Easy Pieces : Lee (Longnick)

March in D : Bach (2nd book Classical and Romantic pieces, arr. Watson-Forbes, O.U.P.)

Musette in G : Handel (2nd book Classical and Romantic pieces, arr. Watson-Forbes, O.U.P.)

Viola

Two German Dances : Mozart, arr. Radmall (Chester)

Bourrée and Hornpipe : Purcell, arr. Forbes (Chester)

Island Reel : Randall (Williams)

Chaconne : Handel (1st Year Classical Album for Viola, arr. Watson-Forbes, Schott)

Sarabande : Telemann (Schott)

Ecossaise : Beethoven (O.U.P.)

Cello

Air : Purcell (No. 1 Graded Pieces, arr. Withers, Schott)

Irish Lullaby : Trowell (Schott)

Sarabande : Corelli (Melodien Grosser Meister for Violin, Cello and Piano, arr. Baechi, Hinrichson)

Polonaise : Bach (Melodien Grosser Meister for Violincello and Piano, arr. Baechi, Hinrichson)

Tambourin : French Song, arr. Such

NOTE.—Candidates offering any instrument for which no test piece has been prescribed, will be permitted to choose their own piece of approximately the same standard as the works set for other instruments. Schools should forward details of such candidates to the Secretary by 30th September preceding the examination.

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<i>Course work</i>	—	30%
<i>Centre of interest</i>	—	10%

Syllabus

- 1.—*Dress Sense*. Suitability for occasion, wearer and cost.
 - (a) Planning of a personal wardrobe including choice of colour schemes and accessories. Suitable outfits for different occasions. Costing and budgeting. Shopping and credit buying. Sizing, labelling workmanship and quality. (Lingerie and nightwear included).
 - (b) Good grooming, maintenance of clothes in wear. Quick methods of repair. On-the-spot cleaning.

- 2.—*Commercial Patterns*. Choice and use of. General rules for taking measurements. Reckoning yardage and cost, adaptations and alterations, economy and importance of lay. Cutting, fitting, making up and pressing of garments.

- 3.—*Fabrics*. Natural and man-made. Simple treatment of origin, sources of supply, properties; suitability to style and purpose. Handling in construction. Fabric finishes and re-action to cleaning.

- 4.—*Equipment and Tools*. Choice and cost, use, maintenance and care of tools.

- 5.—*Stitches and Processes*. Machine attachments may be used where practicable. Stitches: tacking, running, hemming, slip hemming, oversewing, overcasting, loop stitching, tailor tacking, back stitching, button hole.
 Seams: plain with various methods of edge finishing, French, double machined, overlaid.
 Disposal of fullness: darts, gathers, tucks, pleats, smocking.
 Preparation of cross-way materials and their uses for bindings, facings and decorative purposes.
 Setting in and neatening of sleeves by any recognized method.
 Attaching of cuffs.
 Neck finishes including facing and collars. Possible use of interlinings.
 Openings: continuous strip, zips, faced openings and modern closures.
 Fastenings: hooks, eyes, metal and worked bars, press fasteners.
 Buttons including covered ones, loops, buttonholes (various methods.)
 Hems.
 Mounting skirt waist.
 Attaching patch pocket.

Practical Examination

Candidates will be allowed a choice from ONE of four sections.

The schools will be given the necessary information approximately one month before the examination, so that time may be given for planning and preparation under supervision. The time allowed for such planning and preparation may be at the teacher's discretion, but in no case must the actual article be started before the examination.

The time allowed for the actual examination should not exceed $3\frac{1}{2}$ hours.

At least one sewing machine must be available for every two girls.

At least two irons and ironing-boards must be available in the examination room.

Candidates may use books and/or charts.

The test piece, plus any prepared designs, will be placed in the candidate's box or envelope and forwarded by post to the examiner.

Each piece of work must be clearly labelled with the candidate's number.

Practical examination work will **not** be returned to the school.

Course Work

The course work may be started in the January of the year prior to the examination.

- (a) One garment in either fine (e.g. cotton or synthetic fibre) or in a heavier material (e.g. wool or wool mixture) must be made to fit the candidate. Either the process of setting in sleeves or that of attaching a collar must be shown.
- (b) In addition a choice of **one** of the following alternatives must be carried out, each of which should demand a comparable standard of ability of execution.

1.—*Needlecraft* : a second garment which may or may not be made to fit the candidate, but must be made in the alternative weight of fabric from that chosen for (a), *or*

2.—*Embroidery* : a finished piece of work (hand or machine) which shows that the candidate has developed a reasonable understanding of the craft, *or*

3.—*Household Furnishings* : a completed piece of work sufficiently demanding to illustrate the candidate's ability, *or*

4.—*Soft Toys and Doll Dressing* : a finished example or examples which illustrate the skill of the candidate, *or*

5.—*Historical or National Costume* : one complete item or outfit according to the measure of skill involved in execution, *or*

6.—*Toddlers' and Babies' Clothing* : an item or items sufficient to show the level of skill of the candidate. Knitted garments may be included, *or*

7.—*Fabric Pictures* : showing knowledge and understanding of colour, texture, design and stitchery.

ASSESSMENT of Course Work

As far as is practicable candidates will be seen with their course work in their own school or at a local centre within a period to be specified. If it is impossible to carry this out the work will be forwarded to the examiner by a specified date. Whichever method is used, each school will be asked to supply an assessment of each candidate's work.

Centre of Interest

Each candidate to prepare a folder based on any aspect of Needlecraft in which she feels a particular interest. This may or may not have a connection with her course work or may even be additional to the whole syllabus if desired.

This work will be assessed by the school but must be available for the Examiner if required.

NOTE.—Every candidate must attempt every section of the paper.

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(*Old Testament Library*, 50s)

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<i>COMPULSORY: Section A. 1 Paper</i>	<i>2 hours</i>	<i>50%</i>
<i>and</i>		
<i>OPTIONAL: either Section B. 1 Paper</i>	<i>1½ hours</i>	<i>30%</i>
<i>plus Course Work</i>		<i>20%</i>
<i>or Section C. 1 Paper</i>	<i>1½ hours</i>	<i>30%</i>
<i>plus Course Work</i>		<i>20%</i>
<i>(When either Section B or Section C is selected, the school will be required to submit an assessment of the written work done during the course. The work should be of an individual nature and should be marked on a 20 point scale).</i>		
<i>or Section D—a special study</i>		<i>30%</i>
<i>and</i>		
<i>an internal test on the study</i>		<i>20%</i>
<i>(set and marked by the school).</i>		

At the beginning of each examination candidates will be allowed 15 minutes to read the questions.

A candidate must reach at least grade 5 in the compulsory paper (Section A) in order to obtain a grade 4 in the examination as a whole.

Section A—New Testament

Candidates will be expected to have a knowledge of the life and teaching of Jesus Christ, based upon a study of the Gospel according to St. Luke, excluding chapters 1 and 2. This must be supplemented by St. Matthew, chapters 5, 6 and 7 (the Sermon on the Mount); chapter 18 v. 21-35 (the parable of the Unforgiving Servant); chapter 20 v. 1-16 (the parable of the Labourers in the Vineyard); and by Acts, chapters 1 and 2 (The Ascension and Pentecost.)

Questions on the teaching of Jesus Christ will be set in the light of modern events.

Any quotations used in the Examination Paper will be taken from the Authorized Version and the New English Bible. Any version of the Bible will be acceptable for the teaching of the syllabus. Examination Papers with quotations from the Douai or Knox versions will be available if required.

Section B—Old Testament

It is anticipated that a teacher will cover at least six topics in this section.

Abraham and Jacob

Abraham.—How God called and taught an individual. (a) The call of Abraham and God's promises to him. Abraham responds with faith and obedience. (b) God makes a covenant with him. (c) God shows that he does not require human sacrifice. Genesis 11, 31-32; 12, 1-9; 13; 15, 1-18; 21, 1-5; 22, 1-19.

Jacob.—The redemptive power of God worked out in the experience of a particularly faulty character. Genesis 28, 1-22; 29, 1-20; 31, 1-7 and 14-21; 32, 3-12 and 24-30; 33, 1-18.

Moses.—How God created a Covenant People. The deliverance of the Hebrews from Egyptian captivity. The Covenant and Ten Commandments.

Exodus 2; 3; 4, 1-17; 12, 21-39; 14; 15, 1-22; 19; 20, 1-21; 32; 34, 1; 40, 1-3 and 34-38.

Deuteronomy 34.

The Settlement.—Stories showing the problems confronting the Covenant People in their dealings with a pagan culture. The beginning of the Conquest of Canaan. The work of the Judges—especially Deborah and Barak, and Gideon—in leading the Hebrews in the name of Yahweh.

Joshua 3, 14-17; 5, 13-6, 27; 7; 8, 1-29; 24, 1-25.

Judges 1, 16-28; 2, 11-19; 4, 1-16; 5; 6; 7; 8, 22-23.

Samuel.—The rise of the early prophets, and the increasing unity of Israel in face of the Philistine threat. The relationship between God and the Ark of the Covenant. The appointment of the first kings and the strengthening of the concept of the Covenant and Law of God.

I Samuel 1; 2, 1-11; 3; 4; 5; 6; 7; 8; 9; 10, 1-13; 11, 1-15; 15.

Deuteronomy; 17, 14-20.

David.—The unification of the Hebrews and the creation of an administrative and religious capital at Jerusalem.

I Samuel 16; 17, 1-11 and 32-54; 18, 1-16 and 28-30; 26; 31.

I Chronicles 11, 15-19.

II Samuel 1, 17-27; 2, 1-7; 3, 1; 5, 1-12; 6, 1-19; 7; 11; 12, 1-25; 15, 1-18; 18, 1-15.

Solomon.—The building of the first Temple at Jerusalem and the policies which resulted in the division of the kingdom.

I Kings 1, 32-40; 3; 5; 8, 1-6 and 22-66; 9, 1-9; 11, 1-13 and 26-43; 12.

Elijah and Elisha.—Stories of the way in which two very different men worked for God in different ways. Resistance to the attempt to set aside the law of the Covenant. Elisha teaches a new attitude to the 'heathen.'

I Kings 16, 29-34; 17; 18; 19; 21.

II Kings 2, 1-18; 5, 1-19; 6, 8-23.

Amos and Hosea.—The first of the great writing prophets. Religious ritual cannot replace social justice and true righteousness in God's People.

Amos 1; 2; 3, 1-8 and 12; 4; 5, 4-7, 10-15, 18-27; 6, 1-7: 7, 1-15; 8, 1-10.

Hosea's own tragic experience of a broken marriage covenant becomes a parable of God's love to a people who have broken their covenant with God, and of the importance of suffering and repentance.

Hosea 1; 2, 1-20; 3; 4, 1-13; 5, 15 to 6, 8; 8, 4-7, 11-14; 11, 1-9; 12, 1 and 7-9; 13, 2; 14, 1-9.

Isaiah of Jerusalem.—The statesman-prophet, whose call influenced his whole ministry.

Isaiah 6, 1-13 and references throughout to God as the 'Holy one of Israel.'

Comment on the policies of Ahaz : Isaiah 7, 1-7 and 14-20; 8, 3-8 and 12-13; 10, 5-17. Influence on the policies of Hezekiah : Isaiah 30, 1-3 and 12-18; 31, 1-5; 36; 37.

Righteousness as the true expression of worship to God. Isaiah 1, 1-23; 2, 6-9 and 20-22; 3, 14-25; 5, 1-13 and 20-24; 10, 1-2; 29, 13-14 and 18-21.

The idea of a mere 'remnant' (a 'holy seed') who will respond, even after national humiliation : Isaiah 6, 10-13; 10, 20-25; 11, 1-5; 12, 1-6. Messiah's Kingdom and the ideal Israel of God : Isaiah 2, 3-5; 9, 2-7; 11, 1-9; 32, 1-8 and 15-20.

Josiah and Jeremiah

Josiah.—An attempt at reformation through the application of the principles of the Deuteronomic Law : II Kings 22; 23, 1-30. (a) The **religious** reforms Josiah enforced : Deuteronomy 6, 4-7; 7, 1-2 and 5-6; 10, 12-15 and 19-22; 12, 1-14 and 17-19; 16, 1-17; 18, 9-15. (b) The **social** reforms which should have accompanied ritual reforms : Deuteronomy 7, 3-4; 15, 7-8; 22, 1-4 and 8; 23, 19-25; 24, 19-22; 25, 13-15.

Jeremiah.—His call and hesitant response : 1, 1-19; His plea, during Josiah's reformation, for a return to both pure religion : 2, 1-13, and social justice : 5, 1-5, 11-17, 23-31.

He becomes a marked man : 7, 1-26, 30-31; 8, 5-7; 11, 9-13; 17, 5-10; 25, 1-4, 8-12; 16, 1-16; 18, 1-10, 18; 19, 1-5, 10-12, 15; 20, 1-9; 36, 1-28, 32; 22, 11-19; 23, 1-8.

The End—and Beyond : 38, 2-13; 39, 1-14; 31, 15-20 and 28-34.

Prophets of the Exile

Ezekiel.—His call, 2. Thoughts and feelings of the exiles : Psalms, 79; 137; Lam. 1.

Ezekiel's experience of God in a foreign land and his hopes of the revival of Israel. Individual responsibility : 18, 1-5, 7-9, 19-28. His hopes for the restoration of Israel. (a) The Watchman : 33, 1-20. (b) The Shepherd theme : 34, 6-31; 36, 25-36, 38. (c) Dry Bones : 37, 1-14. Note the emergence of the Synagogue.

Deutero-Isaiah.—(a) Attributes of God—'I am the Lord and there is none else': 40, 1-31; 44, 9-20. (b) The Songs of the Servant of Yahweh: 41, 8-20; 42, 1-7; 49, 1-9; 52; 53, 1-12.

The Return.—(a) The rebuilding of the Temple: Haggai 1, 1-11; 2, 1-9, Ezra 1, 1-5; 3, 8-13. (b) The rebuilding of the city walls: Nehemiah 1, 1-3; 2, 1-9, 11-18; 4, 1-3, 7-23. (c) Thanksgiving: Psalms 85; 126. In this section note the part played by the Samaritans. (d) Nehemiah the reformer; 13, 7-12, 14-21, 23-25. (e) The revival of the Covenant: Ezra 7, 1, 6, 28; 8, 15, 21, 31-32; 9, 1-3, 5; 10, 1-4. (f) Ezra's opposition to foreign marriages; 10, 1-12.

The reaction to the particularism of the Jews

(a) Ruth. (b) Jonah.

Religious Persecution.—The fight against Greek paganism, liberation and the foundation of the Jewish State. (a) The story of Alexander: I Maccabees 1, 1-7. (b) Antiochus Epiphanes: I Maccabees 1, 7-15. II Maccabees 4, 7-10, 12-25. (c) The decree of Antiochus: I Maccabees 1, 10-14, 20-25, 31-32, 41-44, 49-50, 56-58. (d) Mattathias defies Antiochus: I Maccabees 2, 1-2, 6, 14-25, 27-29. (e) Jews rise in revolt: I Maccabees 2, 29-44, 48. (f) Judas as a leader: I Maccabees 2, 49-51; 3, 1-4, 25-26. (g) Rededication of the Temple: I Maccabees 4, 36-53.

In this period note the emergence of the Pharisees and Sadducees.

Stories for times of Persecution:

The fiery furnace: Daniel 3, 8-28.

Daniel in the lion's den: 6, 1-23.

Belshazzar's feast: Daniel 5.

The Messianic Idea.—The aim of this section is to show the conflicting ideas of the Messiah. (a) The Conqueror: Isaiah 9, 2-7; 11, 1-9; 32, 1-3; Micah 5, 2-4. (b) The Suffering Servant: Isaiah 41, 8-20; 42, 1-4; 49, 1-9; 52, 13-14; 53, 1-12.

Section C—The Early Church and its Teaching

The extracts from the letters are introduced either to give an example of the kind of letter written to a church whose founding has been studied in Acts, or to illustrate a topic which arises in connection with the incident in Acts.

It is anticipated that a teacher will cover at least six topics in this section.

1. *The Birth of the Church*
Acts 1, 1-14; 2, 1-18, 22-24,
32-33, 36-47.
Romans 8, 9-17.
Colossians 1, 15-23, 26-27.
2. *Christ at work through
His Church*
Acts 3, 1-26; 4, 1-4, 18-22.
I Corinthians 12, 4-11.
3. *Portrait of the Early Church*
'The Fellowship'
'The Apostles' Teaching'
'The Breaking of Bread'
Acts 2, 41-47; 4, 32-37; 5, 1-14.
James 1, 12-27; 2, 1-17; 3, 1-12.
I Corinthians 10, 16-17;
11, 23-24.
4. *Appointment of Leaders*
(Principles of leadership)
Acts 6, 1-7.
I Corinthians 12, 12-31.
I Timothy 3, 1-13.
5. *The Church Spreads*
(No racial discrimination)
Acts 7, 57-8, 40; 10, 1-48.
Ephesians 2, 11-22; 4, 4-6.
6. *Saul's Conversion*
(as he himself saw it)
Acts 9, 1-31; 22, 3-16; 26, 9-19.
Galatians 1, 11-24; 2, 20.
Romans 7, 7 (or 12) -25.
7. *First called Christians*
(Christian Standards)
Acts 11, 19-26.
II Corinthians 4, 1-10.
Colossians 2, 1-25; 3, 1-6.
8. *The First Missionaries*
Acts 13, 1-3; Romans 10, 10-15.
Acts 13, 4-15, 42-52; 14, 1-28.
9. *What is a Christian?*
(Religiosity or Faith ?)
Galatians 2, 15-16, 19-21.
3, 1-5, 23-29; 4, 1-11.
Colossians 2, 14-23.
Acts 15, 1-35.
Romans 14, 1-15.
10. *Philippi, Roman Colony*
(Colony of Heaven)
Acts 16, 6-40.
Colossians 1, 13-22.
Philippians 3, 8-14; 1, 11-30.
Philippians : 3, 17-21; 4, 4-9.
Romans 12, 1-21.
11. *Macedonia*
('King Jesus' : 17, 7)
Acts 17, 1-12.
I Thessalonians 1, 1-10;
4, 9 to 5, 10.
12. *Athens, Philosophers' Centre*
(Divine Wisdom)
Acts 17, 16-34.
I Corinthians 1, 18-25;
2, 1-5 and 16.
13. *Corinth, Commercial Capital*
(Christian Giving)
Acts 18, 1-18.
II Corinthians 8 and 9.
I Corinthians 10, 23-24 and 13,
1-13.
I Timothy 6, 6-10, 17-19.

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|---|--|
| 14. <i>Ephesus, Religious Centre</i>
(The Christian 'Mystery') | Acts 18, 19-20; 24-28; 19, 1-20
23-41.
Ephesians 3, 7-21; 5, 22-32;
6, 10-18. |
| 15. <i>Rome in Sight</i>
(The Christian Perspective) | Acts 20, 18-38 and extracts from
Chapters 21-28.
Romans 8, 18-21 and 28-39;
13, 1-14. |

Section D—Special Studies

(a) Folders and internal tests must be prepared by 1st March of the examination year:

(b) Schools should submit a list of the Board's information and approval; this list should reach the Secretary by 1st May in the year preceding the examination.

The following suggestions are offered for **Course Work** :

The Christian denominations and the Ecumenical Movement.

Archaeology and the Bible Story. This may be divided into
Old and New Testament work.

The modern Church at work.

How we got our Bible.

Local church history.

A period of church history.

Modes of Christian worship.

My parish.

A denomination and its teaching.

Comparative religions.

Social work of the Church in the twentieth century.

Christian doctrine.

The biography of a great Christian.

Christianity and modern problems.

Work on a missionary station.

RURAL SCIENCE

	<i>Duration</i>	<i>Marks</i>
<i>Written Paper 1</i>	1 $\frac{3}{4}$ hours	20%
<i>Written Paper 2</i>	2 $\frac{1}{4}$ hours	30%
<i>Course Work—Practical</i>	—	30%
<i>Special Study</i>	—	20%

The first 15 minutes of each examination will be allowed for reading the paper.

Paper 1

SECTION A. Forty simple questions of the short answer, multiple choice, completion, or labelling type, with a choice of two questions from five essay type.

Paper 2

SECTIONS B-H. A choice of sixteen short answer type questions from sixty (section C, twelve questions, all other sections eight) with five from forty-five essay type questions (nine in section C and six in all other sections.) Not more than three to be answered from any section.

PRACTICAL WORK. At least a complete year's practical work carried out on the section dealing with the principles (section A) and two or more chosen sections to be assessed by periodic tests, records and teacher impression. The final year to be regarded as a complete seasonal cycle.

SPECIAL STUDY OR INVESTIGATION, involving individual or group experiments and observations undertaken as part of the course.

Candidates will be required to satisfy the examiner in both practical work and written papers.

The scientific principles mentioned in this syllabus should be studied in relation to their practical applications in everyday life and, where possible, living organisms should be observed in their natural habitats. A record of observations and experiments should be kept. A wide choice of questions will be set to afford opportunity for candidates to suit their studies to individual requirements. A fair range of practical work is expected in whichever sections are chosen. Emphasis should be placed on safety precautions, especially in the use of spraying materials and electrical appliances.

Paper 1 Section A—General

Atmospheric pressure. The composition of the air; combustion and respiration. Transference of heat by conduction, convection and radiation. Temperature measurement.

Atmospheric conditions; humidity; dew; cloud; mist; fog; frost; diffusion.

Types of rock and erosion as an introduction to the formation of soils. Simple study of chemical and physical characteristics of soils, soil life, earthworm, bacteria and other soil organisms. Advantage gained by making use of weather in soil improvements. Formation of humus. Use and value of lime, manures and fertilizers.

Structure and life history of flowering plants, including a simple study of germination, growth, photosynthesis, respiration, food storage, osmosis, transpiration, pollination, fertilization and dispersal of fruits and seeds.

The characteristics of living things; plants and animals compared.

Paper 2 Section B—Ecology

Simple plant and animal ecology; plant associations; dominant plants; animal territory; migration; hibernation. Observation and study (including life history) of wild life: a mammal; a bird; a reptile or crustacean; insects; animals of pond or pool. Observation and study of wild plants including recognition of common trees; simple classification; habitat and growth.

Section C—The Garden

Candidates will be expected to answer questions on at least two of these three parts.

Part 1.—The Vegetable Garden

The use and care of tools. Cultivation of vegetables, salads and herbs.

Winter digging and manuring; preparation of seed beds; rotation of crops; composting; treatment for weeds, pests and diseases, beneficial animals.

Part 2.—The Fruit Garden

Soft Fruits.—Black and red currants, gooseberries, strawberries, raspberries. Development of a bush from a cutting to a mature fruiting stage; choice of site. Propagation, pruning, spacing and planting. Certified stock. Pests and diseases and their control. Mulching.

Tree Fruits.—Apples, pears, plums. Development of root stocks and their effect on the mature tree; stooling and layering of root stock; budding and grafting. Pruning for shape and framework; subsequent pruning for fruit. Pests and diseases and their control. Fertility rules in fruit planting; choice of site. Manuring. Fruit storage.

Part 3.—The Flower Garden

Cultivation of annuals, biennials, herbaceous perennials, ornamental trees and shrubs, ornamental and boundary hedges. Propagation of plants from seed, cuttings, division, layers, budding and grafting. Pruning of shrubs and ornamental trees. Lawn making and maintenance. Garden design—practical and aesthetic considerations, rock and water garden. Control of weeds, pests and diseases. Plant breeding and genetics in either vegetables or flowers.

Section D—Protected Cultivation

The use of heated and unheated greenhouses and garden frames and cloches, garden lights in the propagation and cultivation of flowers, fruit and vegetables. House plants. Pests and disease control of protected crops.

Section E—Forestry

The biology of woodland. Selected trees, shrubs, herbs, mosses and their associated fauna. Structure of the tree as a woody plant. Conifers and deciduous trees, life history, propagation, management and recognition. Common pests and diseases. Forest products.

Section F—Livestock

External features of mammal, bird and insects. General principles of livestock feeding; carbohydrates, fats, proteins, mineral salts, vitamins, maintenance and production rations.

A study of ONE of the following animals : poultry (one species) rabbit, pig, sheep, goat, cow, bee.

For the chosen animal, the digestive, circulatory, excretory, reproductive, skeleton systems; pests and diseases and their control; breeds and their uses; breeding; simple genetics; rearing; systems of housing and managements; products.

Section G—The Farm or Holding

Simple rotation of crops; cultivation and harvesting of crops; permanent grass and leys; the use of grass; grazing hay, dried grass and silage.

Common weeds and pests and the control methods used. The animals of the farm and their place in its economy. Recognition of common grasses and more common farm crops.

Section H—Machinery

Types of small mechanical cultivators and/or tractors, and their uses; fuels, principles of petrol, diesel and tractor vaporising oil engines; lubrication; daily maintenance; value of hydraulic system and power take off.

Uses and maintenance of common garden and farm implements.
Electricity on the farm and garden.
Safety precautions.



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SCIENCE

	<i>Duration</i>	<i>Marks</i>
<i>Paper 1. Basic Science</i>	$1\frac{1}{2}$ -2 hours	35%
<i>Paper 2. One or more of:</i>		
(a) <i>General Science</i>	} $1\frac{1}{2}$ -2 hours	45%
(b) <i>Physics</i>		
(c) <i>Chemistry</i>		
(d) <i>Biology</i>		
(e) <i>Human Physiology and Hygiene</i>		
<i>3. Teachers Assessment</i>	—	20%

The examination will consist of the Basic Science Paper (Paper 1), plus an additional paper or papers taken from the range of subjects specified above.

All candidates will be required to take the Basic Science Paper once only and the marks obtained will be included with those allotted to the optional subject or subjects taken for Paper 2.

Examination certificates will be issued for success in any of the five optional subjects, but not for Paper 1 alone.

General Science may not be taken at the same examination as any other science under the Paper 2 options (a) to (e) above.

Biology may not be taken at the same examination as Human Physiology and Hygiene.

Syllabus

The syllabuses are NOT teaching syllabuses but are intended as guides to the scientific knowledge that children might be expected to acquire in a period of five years.

It is felt that the wide diversity of opinion and facility has to be met. The Basic Science syllabus is intended as an essential basis of general science on which a more detailed approach to individual subjects could be built. *All candidates will therefore be required to take the Basic Science Paper.*

It is accepted as axiomatic that the approach to the syllabus will be practical and linked whenever possible to everyday experience and observation, using a critical approach to evidence. Accurate recording should be encouraged.

The treatment of topics should not be restricted to narrow limits within a subject. Definitions should arise from experimental work and not be taken as motive points.

Questions will be set to test the candidate's ability to use the knowledge indicated in the syllabus in order to understand a scientific situation, to devise experiments and to draw conclusions of a scientific nature.

Note: No major alterations to these syllabuses are contemplated for 1967. A broad outline of proposed changes for 1968 will be announced when the syllabuses for 1967 are published.

Basic Science

The separate branches are for convenience grouped in the syllabus, but questions will not be limited to any one section.

PHYSICS

Day and night. General form of solar system.

Pressure of air. Use of simple barometer. Measurement of gas pressure. Lift pump. Fluid pressure and depth. Flotation and buoyancy (concept only). Densities of regular solids by direct measurement.

Application of levers. Simple idea of work. Centre of gravity, stability, conservation (energy relationships).

Thermal expansion of solids, liquids (including anomalous expansion of water in freezing) and gases. Thermometer, Centigrade and Fahrenheit. Scales of temperature qualitatively. Thermostat. Transfer of heat by conduction, convection and radiation. Uses of conductors and insulators. Difference between heat and temperature. Idea of calorie and British Thermal Unit as measurements of heat.

Rectilinear propagation and speed of light. Pinhole camera. Reflection by plane mirrors. Refraction through glass block and water. Uses of instruments employing mirrors and lenses, periscope, driving mirror, shaving mirror, magnifying glass. Comparison of camera and human eye. Spectrum, composition of white light only.

Permanent and temporary magnets. Law of repulsion. Simple magnetic fields. Magnetic compass. Simple electric circuit, conductors and insulators. Qualitative concept of potential. Knowledge of terms, volts, amps and watts. Magnetic effect of current flowing in a solenoid. Electric bell. Heating effect, fire, lamp, fuse, plug and use of earth in plug and wire. Simple cell. Leclanché and dry cell. Use and maintenance of accumulators. Making electricity with magnet as applied to cycle dynamo. Making electricity by friction. Simple idea of potential as applied to lightning. Simple atomic structure, nucleus, proton, neutron, electron.

CHEMISTRY

Physical and chemical change. Elements, mixtures and compounds. Solids, liquids and gases. Solution and suspension. Filtration, decantation, evaporation, distillation. Separation of mixtures.

Air and the atmosphere. Simple composition. Burning, breathing and rusting. Coal gas and the bunsen burner. The laboratory preparation, elementary properties and uses of oxygen, hydrogen and carbon dioxide.

Water. The rain cycle, water supply and purification. The distinction between hard and soft water. Simple properties of acids and alkalis. Salts and crystallization.

BIOLOGY

Characteristics of living things. An elementary treatment of man himself with particular importance to functions. Skeleton, including simple movement of a limb. Types of food. Simple tests for these. Alimentary canal and simple account of digestion. External respiration. Simple model of the lungs. Heart. Structure and circulation of the blood. Internal respiration. Excretion. Skin. Kidneys (very simple). Reproduction. The eye.

Man and agriculture. Solid formation and structure. Animals found in soil, e.g. earthworm. Bacteria and viruses. Bacteria and soil, airborne bacteria. Bacteria and decay. Food preservation. Bacteria and disease. Viruses. The fight against disease. Sterilization, disinfection, immunization, vaccination, antibodies. The work of Pasteur, Lister and Fleming.

Simple structure of a flowering plant. Functions of the principal parts e.g. root, stem, leaf, flower in outline only. Photosynthesis, respiration, food storage, dispersal of fruits and seeds, germination in plants.

Variety of animal life. A comparative study of external appearance and habits. A familiar mammal e.g. cat, a bird e.g. pigeon, a reptile e.g. tortoise, a frog, a fish, one insect to show simple, typical insect features.

Good grooming, posture and rest, exercise, cleanliness, shoes, feet, clothing. Care of eyes, ears, teeth, skin. Atmospheric pollution.

General Science

Composition of air, extraction of oxygen from air, burning, rusting and respiration as forms of oxidation, complete and incomplete combustion, flame and explosion, fuels, air pollution.

Preparation and properties of oxygen. Acidic and basic oxides. Acids and alkalis.

Preparation of salts by acid and metal, acid and alkali.

Preparation, properties and uses of hydrogen.

Properties of carbon monoxide. Reduction by carbon, carbon monoxide and hydrogen. Blast furnace. Conversion of iron to steel.

Useful properties and common uses of the metals aluminium, copper, zinc, lead, iron and tin.

Idea of chemical change. Elements, mixtures and compounds. Use of formulae and simple equations. Elementary understanding of atoms and molecules.

Moving molecules and matter. Protons and neutrons.

Evaporation, filtration, distillation, crystallization. Separation of mixtures. Solubility and solutions. Electrolysis of water. Action of metals in water and steam.

Forms of calcium carbonate. Quicklime and slaked lime. Hardening and weathering of mortar. Preparation, properties and uses of carbon-dioxide. Hardness of water. Detergents. Surface tension.

Preparation of hydrochloric or nitric acid. Properties and uses of mineral acids. Appearance and uses of the common laboratory chemicals.

Coal as a fuel. Origin of coal. Destructive distillation of coal. Outline of coal gas manufacture.

Simple study of a mammal with particular reference to man. Respiration as an energy process. Mechanism of breathing. Circulation of blood. Structure and functions of blood. Outline of heart structure and function.

Food tests. Balanced diets. Digestion of food. Digestive system. Excretion by kidneys and skin. Temperature regulation. Simple study of the skeleton. Movement of limb. Control of movement by the nervous system. Reflex actions.

The cell as the unit of life. Growth by cell division. Fertilization. Reproduction in a mammal.

Comparison of mammal (e.g. breathing, reproduction, etc.) with other vertebrates such as fish, bird, frog.

Photosynthesis as a food source. Food storage organs in plants. Life cycle of a plant. Vegetative reproduction. Osmosis. Transpiration. Transport of water in a plant.

The Earth's crust. Types of rock. Origin and structure of soil. Types of soil, with properties. Soil treatment. Importance of mineral salts. Use of lime and artificial fertilizers. Capillarity.

Structure of a flower (named). Pollination and fertilization. Structure of seeds (pea or bean). Seed dispersal. Germination. Response of plants to light, water, gravity.

Life cycles of a butterfly, housefly and mosquito. Relation of housefly and mosquito to health. Bacteria and fungi as agents of decay, disease and fermentation.

Study of life in a cold water aquarium.

Heat and temperature. Expansion of solids, liquids and gases with applications. Simple understanding of the Kinetic theory. Thermometers. Temperature scales. Thermostats. Transfer of heat by conduction, convection and radiation. Applications to heating systems. Ventilation. Heat insulation. Anomalous expansion of water. The thermos flask. Heat units. Measurement of heat. Qualitative and simple quantitative treatment of specific and latent heat. Climatic applications. Calorific values of food and fuels. Refrigeration.

Air Pressure. Mercury and aneroid barometers. Altimeters. Pumps. Syphon. Measurement of gas pressure. Fluid pressure. Taps. Valves.

Weather. High and low pressure regions. Humidity, temperature, air pressure, etc., as factors. Formation of fog, mist, dew, rain.

Density of solids and liquids. Archimedes' Principle. Flotation. Ships and submarines. The Plimsoll Line. Hydrometers.

Properties of magnets. Magnetic effect of an electric current. Permanent and temporary magnets. Magnetic compass. Electromagnets. Electric bell. Telephone. Earth's magnetism. Molecular theory of magnetism.

Voltage, current and resistance and their measurement. The electric circuit. Series and parallel circuits. Ohm's law. Heating effects of a current. Heating appliances. House wiring treated simply. Fuses. Earth wire. Electrical energy and its measurement. Chemical effect of a current. Copper plating. A.C. and D.C. generators. Transformer. Electric motor. The dry cell. Care and use of lead-acid cells.

How light travels. Shadows and eclipses. Reflection at a plane surface. Uses of curved mirrors. Refraction by glass block, prism, water and lens (graphical methods included). The magnifying lens used in projectors, cameras, vertebrate eye. The spectrum. Colour.

Vibration as the cause of sound. Transmission by material media. Pitch. Note emitted by a stringed instrument. The ear. Speed of sound. Echoes. Absorption of sound.

Force. The turning effect of a force. Simple levers. Mechanical Advantage. Use of pulleys in simple systems. Work and its measurement. Horse power. Force of gravity. Centres of gravity. Stability. Friction. Solar system treated simply. Stars. Galaxies.

Physics

Candidates will be required to attempt not more than five questions. The paper will consist of 20 questions. Two questions will be set on each of the topics listed in the syllabus. It is hoped that the content of the syllabus will be treated in as practical a manner as possible with constant reference to everyday phenomena. Where possible emphasis should be placed on the application of the principles involved.

Questions involving simple calculations may be set on those parts of the syllabus in italics; graphical solutions will be accepted, where practical.

It is not intended that candidates should cover all the ground contained in the syllabus, rather it is hoped that those topics which have most relevance and hold most interest for pupils will be selected.

I. MECHANICS

Effects of inertia. The spring balance—elasticity of metals, i.e. Hooke's Law.

Qualitative treatment of friction, surface tension and capillarity.

Transmission of movement by pulleys and gears. Levers. Principle of Moments: balanced forces. Equilibrium. The centre of gravity—stability of a body at rest. The use of simple machines in the movements of loads: inclined plane, list order pulleys, screw jack, wheel and axle, Weston block.

Mechanical advantage, velocity ratio, efficiency and horse power.

Density of insoluble solids and liquids. Specific gravity. Archimedes principle and its application to floating bodies. The Plimsoll line. Transmission of pressure in liquids. *Pressure and thrust.* Practical application, e.g. brake systems, jacks, suspension and presses. Divers, etc.

II. HEAT

Comparative expansion of solids by heat—simple application. *Centigrade, Fahrenheit and Absolute scales*. Measurement of heat; *simple calorimetry*. Comparison of calorific values of fuels, as applied to the home. British thermal unit, Therm and large calorie.

Household hot water system and the heating of a house as a study of the methods of heat transfer. The vacuum flask. Ventilation of a room.

Atmospheric conditions; formation of dew, mist, fog, frost, rain and snow. Humidity, (qualitative). Simple weather study.

Study of household cold water system and applications. Bursts caused by freezing, their prevention. Changes of state.

Latent heat: its application, e.g. compression refrigerator, cooling by evaporation.

III. LIGHT AND SOUND

The nature of light, electromagnetic spectrum. Natural and artificial light sources. Variation of illumination with distance from source, (qualitative). Lighting in the home, e.g. positioning of lights, diffusion. Absorption and irregular reflection.

Shadows and eclipses; phases of the moon.

Graphical treatment of reflection from a single plane surface and a concave mirror; uses of plane and curved mirrors.

Refraction of light between air and water and between air and glass. *Refractive index*: real and apparent depth and Snell's Law. Critical angle and total internal reflection.

Lenses. Graphical construction for convex lens only. The uses of lenses in instruments such as camera, projector, simple magnifier and astronomical telescope.

The eye as a means of vision; long and short sight and their correction by lenses.

Production of spectrum. Colour of materials. Colour fringes from cheap lenses.

Production, transmission and detection of sound including the ear. Direct methods of determining the speed of sound. Echoes and echo sounding. Difference between music and noise, relationship between frequency and pitch, the connection between amplitude and volume. Acoustics in the home, the control of sound by absorption and reflection.

IV. MAGNETISM AND ELECTRICITY

The earth as a magnet—variation. Induced magnetism. Current detectors. Electro-magnetic induction. The dynamo. Production of A.C. and D.C. currents, use of commutator and slip rings. The power station and National Grid system.

Simple telephone circuit.

The ammeter and voltmeter, simple applications. The use of shunts. The electric motor. Simple use of electromagnet in generator and motor. The simple circuit. Conductors and insulators. *Cells in parallel and series*. Factors upon which resistance depends.

Resistances in series and parallel. Current and Ohm's Law. Heating effect of an electric current. Wattage. Heat equivalence of electrical energy.

Chemical effect—electroplating.

Static electricity. Industrial application, e.g. paint spraying, removal of dust particles, lightning conductors. The capacitor as a store for electrical energy.

V. RADIO

The development of communications, including telegraphy, leading to the historical development of radio—the work of early pioneers, e.g. Hertz, Lodge, Marconi and Fleming.

The electro-magnetic spectrum.

Simple thermionic emission—variation of current with anode voltage. The diode as a rectifier—construction, application. The metal rectifier. The full-wave rectifier and the practical application of smoothing coil and capacitor in a typical power pack. The construction of the triode valve and its application as a voltage amplifier. The application of tuned circuits. Detection—application. The junction transistor. Its construction and its simple application in circuits comparable with those of the valve. The story of radar and its application. The microphone and loudspeaker.

All the above should be treated in a practical manner and should include the construction of a simple crystal set and simple valve receiver.

VI. ENGINES

The single cylinder two-stroke engine. Energy relationships. The development of the Otto 4-stroke engine. The valves and their operation. Carburation. Ignition—the coil and distributor, production of high voltage from car battery. Ignition timing. The cooling system; use of thermostat in water cooled engines; air cooling. Transmission—the flywheel, clutch, transmission shaft and universal coupling. The gear box—simple explanation. The rear axle differential; its purpose.

VII. ATOMIC STRUCTURE

Rutherford-Bahr atom. The nucleus, proton, neutron and electron. Atomic number and atomic mass.

Radioactivity—alpha, beta and gamma rays. Their discovery. Cosmic rays. The use of radioactive salts, elements and their isotopes. Transmutation of the elements, half life; fission. The use of X-rays and their dangers. Solar power.

Photoelectric effect and its applications.

VIII. ASTRONOMY

The solar system. The Earth as a planet. The seasons. The moon and its phases. Tides. General nature of moon's surface. Calculation of latitude from pole star and the altitude of the sun at noon. Time—solar and sidereal.

Sunspots, their cycle and effects. Comets, meteors and meteorites. The major constellations. The birth and death of a star. Galaxies and the extent of the Universe.

IX. FLIGHT

Simple theory of flight—lift, drag, pressure distribution over wing surfaces. Angle of attack, stalling.

Gas turbines and jet propulsion. Rocket propulsion and its application to space flight. The work of the pioneers in each of the above fields. Problems of supersonic flight.

X. HOUSEHOLD ELECTRICITY

The simple circuit, wiring door bells, reading lamps.

Two-way switches.

The use of a transformer for safe low voltage circuits.

Efficient earthing—effect on old earthing circuits of modern use of plastic plumbing.

Fuses and fuse boxes.

Plugs and sockets—choosing correct ones for different appliances and amperage.

The ring main and fused plugs. Construction of an electric light bulb—historical treatment.

Modern lighting including the discharge tube. Arrangement of lights—illumination.

Calculation of power.

The electric light bill and relative cost of various appliances.

The dangers of electricity, common faults.

Introduction to TECHNICAL DRAWING

BOOK 1 Construction and an Introduction to Projection

H. ORD, A.M.I.E.D., A.R.Ae.S., F.R.Econ.S., Examiner to the Yorkshire Council for Further Education: Assistant Examiner in Engineering Drawing to Associated Examining Board.

Specially written to meet the growing need for an elementary book for young students who are taking up Engineering Drawing for the first time as one of the subjects for the C.S.E. 7s 6d



*Teachers are invited to write for Inspection Copies to Dept F23,
102 Newgate Street, London EC1.*

Chemistry

Candidates will be expected to show by their answers that they have performed practical experiments illustrating the subject matter and that they are familiar with fundamental processes and laboratory techniques such as solution, decantation, evaporation, distillation, filtration and precipitation.

Candidates will be expected to have knowledge of the occurrence and practical applications in everyday life and of the occurrence in nature of the various processes, techniques and other matter indicated in the syllabus.

Industrial processes need be dealt with in outline only.

Solids, liquids, gases. Physical and chemical changes. Elements, mixtures, compounds. Conservation of matter. Constant composition. Chemical symbols, formulae and simple equations. The idea of atoms and molecules in so far as it helps to give a picture of a chemical reaction.

Solutions and suspensions. Saturation. Solvents and their uses. Separation of mixtures by the processes mentioned above. Crystallization. Simple purification of solids and liquids by crystallization, filtration and distillation.

Air (atmosphere). Its composition dealt with qualitatively. Volumetric composition with reference to oxygen and nitrogen. Burning, breathing, rusting.

Oxygen. Laboratory preparation and properties. Commercial preparation from liquid air. Its uses. Essential nature of oxygen to life processes. Oxidation and reduction treated simply as the chemical addition or removal of oxygen. Acidic, basic and neutral oxides.

Hydrogen. Laboratory preparation and properties. Reduction of metallic oxides by hydrogen.

Water. Simple treatment of composition. Water of crystallation. Efflorescence. Deliquescence. Dehydration. Rain cycle, water supply, water purification.

Carbon. Graphite, charcoal, diamond. Carbon dioxide. Laboratory preparation and properties. Commercial preparation. Its uses. Breathing and respiration in animals and plants. Properties and occurrence of carbon monoxide. Carbonates; action of acids and of heat on carbonates.

Burning. The nature of burning. The composition of common fuels (solid, liquid, gaseous) and their combustion to yield heat. Engines and their waste products. Flame—hydrogen, candle, bunsen. Smoke and air pollution. Destructive distillation of coal and the uses of its main products. Coal gas. Outline of coal hydrogenation and of petroleum distillation. Explosions of mixtures of coal gas and air; petrol vapour and air. Controlled explosions used in internal combustion engines, blasting, weapons. Matches.

Laboratory preparation of nitrogen from the air. Laboratory preparation of ammonia from an ammonium salt. The physical and chemical properties and uses of ammonia (including its alkaline nature and its catalytic oxydation.) Formation of ammonium salts and nitrates in the soil. Nitrogen cycle. Common fertilizers for the soil. Laboratory preparation of nitric acid and a simple outline of its large-scale manufacture from the air.

Sulphur as a typical non-metallic element; its occurrence in various forms. Outline of the manufacture of sulphuric acid from sulphur by the contact process. Reactions of concentrated sulphuric acid (i) as a dehydrating agent, (ii) as an oxidising agent. Great industrial importance of sulphuric acid.

Release of chlorine during electrolysis of common salt solution. Bleaching and disinfectant action of chlorine. Preparation of hydrogen chloride and hydrochloric acid from common salt. Oxidation of hydrochloric acid to chlorine.

Electrolysis. Electrolysis of acidulated water yielding hydrogen and oxygen. Electrolysis of copper sulphate solution. Electro-plating treated simply.

Metals (including common alloys) and non-metals. Physical and chemical characteristics. Uses of iron, tin, copper, lead, aluminium. Outline of extraction of (i) iron, (ii) aluminium from the ores. Production and purification of copper by electrolysis. Prevention of rusting.

Acids. Simple properties of dilute mineral acids including effect on common indicators. Action of some metals in displacing hydrogen. Alkalies and bases. Neutralization. Salts. Preparation of soluble salts from metals, oxides, hydroxides, carbonates. Precipitation of insoluble salts. Uses of the commoner salts.

Hardness of water. Forms of calcium carbonate e.g. limestone and chalk. Causes of hardness. Advantages and disadvantages of hard and soft waters. Temporary hardness and permanent hardness. Methods of softening hard water. Action of soap. Manufacture of soap.

Limestone and chalk. Stalactites and stalagmites. Quicklime and slaked lime. Cement, mortar, plaster, plaster-of-paris.

The practical identification of very simple substances, for example common elements: gases, salts of sodium, potassium, calcium, copper, iron and ammonium; carbonates, chlorides and sulphates.

Biology

Biology is the study of living things and the use of living organisms is essential. The study of these organisms in their natural surroundings is particularly valuable.

The approach, as with the Basic Science scheme, should be essentially practical. Careful observations and recording, a critical approach to evidence, and interest in the subject should be encouraged.

A further treatment of man in considerably more detail than needed for the Basic Science Paper, again with particular reference to function:

(a) Skeleton and muscles. (b) Nutrition. (c) Respiration. (d) Circulation. (e) Excretion. (f) Co-ordination. Simple account of nervous system and selected endocrine glands. (g) Reproduction.

Throughout this section comparison should be made with the physiology of a typical mammal, e.g. rabbit.

Heredity, Variation and Evolution.

(a) Examples of the evolutionary process. (b) Mendel's Laws (c) Simple study of chromosomes and genes. (d) Very simple ideas of D.N.A. and R.N.A.

A simple ecological survey of a selected habitat such as a pond, hedgerow, garden, waste ground, etc. A knowledge of the factors affecting the organisms in the habitat e.g. soil, air, water, temperature, light. Methods of recording. Adaptions to mode of life shown by the various organisms. Interdependence of various organisms.

A study of the following organisms, where possible in connection with the work in ecology.

1.—(a) A unicellular animal. (b) Hydra or other coelenterate. (c) Earthworm. (d) An insect. (e) A mollusc, e.g. snail. (f) A fish. (g) An amphibian. (h) A reptile. (i) A bird. (j) Another mammal—not man.

2.—(a) An alga. (b) A fungus. (c) Flowering plants—herbaceous and woody.

Simple physiology of a flowering plant.

(a) Simple study of osmosis and diffusion. (b) Intake of water. (c) Transport of water—root pressure, capillarity. (d) Transpiration including estimation of leaf area and comparison of transpiration rates. (e) Photosynthesis—including the composition of chlorophyll. (f) Respiration. (g) Reaction to light and gravity. (h) Pollination and fertilization (outline only). (i) Dispersal of fruits and seeds.

The cellular nature of living organisms, treated solely from a practical point of view.

Human Physiology and Hygiene

Work must be based on direct observation and simple experiments illustrating physiological processes.

Any question set on reproduction will be accompanied by an alternative question on a different topic.

The Cell. Structure and functions of human cells. Variation of cells, elementary structure of tissue and organs. Growth and repair. General plan of the human body.

The Skeleton. Structure and properties of bone and cartilage.

General view of skeletal framework. Structure and functions of the skeleton. Teeth, their structure, functions and growth.

The Joints. General structure of principal types of joints. Ligaments and muscles in relation to the movement of joints.

The Muscles. General structure and characteristics. Uses of muscles with special reference to the respiratory system and limb movement. Muscle tone and fatigue.

The Circulatory System. Composition and functions of the blood. Blood cells and their origin. Blood groups. Heart, its position, structure and functions. General structure and functions of principal blood vessels. Regulation of heart rate and pulse. Coagulation of blood and repair of tissue.

The Respiratory System. Position, structure and function of the respiratory organs. Voice and speech.

The Digestive System and Food. Structure and functions of organs connected with the digestive system. Digestion, absorption, transport and utilization of food. Nutritional requirements for a balanced diet. Metabolism of body for health. Food hygiene and reference to the statutory regulations in manufacture, distribution and storage. Putrefaction and preservation.

The Skin. Structure and functions of the skin and the main organs contained in the skin. Body heat and control of body temperatures. Clinical thermometer.

The Excretory System. Simple structure and functions of kidneys and main organs of excretion.

The Reproductive System. The position, structure and functions of the reproductive organs. Parental care.

Co-ordination and Control. Nerves and how they work. Voluntary and reflex actions. Nervous system, brain, spinal cord, simple structure of sense organs. Ear, eye, nose, taste and touch and their functions. Simple study of endocrine glands, hormones, and their uses.

Mendelism. Simple Mendelism, chromosomes, genes and their applications to man. The distinction between factors inherited and those which are the result of environment.

Historical. Study of scientists whose work has contributed to the understanding and prevention of spread of disease, e.g. Pasteur, Koch, Simpson, Lister, Jenner, Fleming.

Health of the Individual. Elements of personal and domestic hygiene. Elements of good grooming and the importance of good habits. Value of cleanliness, rest, exercise, good posture. Importance of suitable clothing, feet, shoes.

First aid and home nursing to the minor accidents likely to be encountered in the home environment. The importance of knowing why something is done rather than the application of a perfect bandage. Artificial respiration by "kiss of life" technique. Accident prevention. Public Health Scheme. (St. John and Red Cross.)

Community Responsibilities. Importance of fresh air, clean food and clean water. Removal and disposal of refuse and sewage.

The life history, destruction and methods of control of vermin, housefly, mice, rats, parasites, etc. Treatment of verminous persons and verminous clothing. Housing.

TECHNICAL DRAWING

	<i>Duration</i>	<i>Marks</i>
<i>Paper I. Plane and Solid Geometry</i>	<i>2 hours</i>	<i>40%</i>
<i>Paper II. Reading and Drawing</i>	<i>2½ hours</i>	<i>60%</i>

To pass the examination, a candidate must satisfy the Examiner in both papers.

At the beginning of each examination, 15 minutes will be allowed for reading the questions.

Syllabus

The proposals of the British Standards Institution contained in the School Edition of "Drawing Office Practice 308" should be followed. The correct use of pencils and drawing instruments, the quality of lettering and figures and the layout of drawings.

First and third angle methods of projection are to be used and a knowledge of both methods is expected. Questions may be set in either first or third angle projection. Candidates may answer in either first or third angle as they wish.

Division of lines into equal parts. Construction of plain and diagonal scales, bisection of angles, construction of angles of 30, 45, 60 and 90 degrees.

Construction of rectangles, triangles of elementary nature, parallelograms and regular polygons to specified measurements. Reduction of polygons to triangles, rectangles and squares of equal area. Enlargement and reduction of polygons with sides of given ratio. Circumscribed and inscribed circles. Construction of tangents to full circle or arc. Construction of an ellipse from major and minor axes and determination of foci. Loci in relation to simple link mechanism.

Orthographic representation of simple geometrical solids, auxiliary projections, sections and true shapes of sections at set-square angles to the main planes.

Surface developments including truncation of simple solids; cube, cylinder, prism, pyramid and cone. (No hyperbola or parabola required).

Conventional isometric views of simple solids including prisms and cylinders. Free hand sketching.

Orthographic projection first and third angle methods. The ability to read and understand isometric and orthographic projections. The correct projection of simple components and other drawings of technical nature. Vertical and horizontal sections.

Conventional representation of standard nuts and bolts.

Free hand sketching of pictorial views from orthographic projections or vice-versa.

WEST MIDLANDS EXAMINATIONS BOARD

List of Publications

Memorandum No. 1 (now out of print) :

List of Officers, Council Members, Subject Panel Chairmen and Members.

Memorandum No. 2 (now out of print) :

Notes on Syllabuses.

Memorandum No. 3 :

Course Work.

Memorandum No. 4 :

History – Notes on Special Studies.

Leaflet :

'A Short Guide for Employers'.

Publications of the Secondary School Examinations Council

Examinations Bulletin No. 1 :

'The Certificate of Secondary Education' (H.M.S.O. 1963).

Examinations Bulletin No. 2 :

'The Certificate of Secondary Education: Experimental Examinations – Mathematics' (H.M.S.O. 1964).

Examinations Bulletin No. 3 :

'The C.S.E. An Introduction to some techniques of examining' (H.M.S.O. 1964).

Examinations Bulletin No. 4 :

'The C.S.E. An Introduction to objective-type examinations' (H.M.S.O. 1964).

NOTES

NOTES

WEST MIDLANDS EXAMINATIONS BOARD
Certificate of Secondary Education

TIME TABLE 1966

Day	a.m.	p.m.
APRIL Fri. 29		2. 0—3.30 German: Paper I
MAY M. 2	9.30—12.15 Technical Drawing: Paper II	2. 0—4.15 Science : Paper II (Physics)
Tu. 3	9. 0—12. 0 Accounts	2. 0—4.15 Metalwork (Craft Knowledge)
W. 4	9. 0—12. 0 English : Paper I	2. 0—4. 0 Shorthand
Th. 5	9.30—11. 0 Spanish : Paper I	2. 0—3.45 Rural Science:Paper I
Fr. 6	9.30—12.15 Mathematics : Paper I	2. 0—3.45 Needlecraft
M. 9	9.30—11.45 Science : Paper I	2. 0—3.30 French : Paper I
Tu. 10	9.30—11.45 English : Paper II	2. 0—4.15 Technical Drawing : Paper I
W. 11	9.30—11.45 Religious Educn. : Paper I	2. 0—4.15 Geography : Paper I
Th. 12	9.30—11.45 Music	2. 0—4.15 Rural Science : Paper II
Fr. 13	9.30—11.45 History	2. 0—3.45 French : Paper II
M. 16	9.30—12.15 Mathematics : Paper II	2. 0—3.45 Home Economics
Tu. 17	9.30—11.45 Science : Paper II (General Science, Biology, Human Physiology)	2. 0—3.45 Religious Educn. : Paper II
W. 18	9.30—11.45 Science : Paper II (Chemistry)	2. 0—3.45 Spanish : Paper II
Th. 19	9.30—12.15 Art and Craft : Paper A	2. 0—4.15 Commerce
Fr. 20	9.30—11.45 Geography : Paper II	2. 0—4. 0 Typewriting
M. 23	9.30—11.45 Woodwork (Craft Knowledge)	2. 0—3.45 German : Paper II

1st March—1st April Art and Craft examinations to be held as convenient to schools.

1st March—6th April Practical Examinations in Home Economics and Needlecraft and Tests of Performance etc. in Music to be arranged with schools.

25th March Aural Tests in Music.

9th March—6th April Oral Examinations in English, French, German and Spanish and Practical Tests in Metalwork and Woodwork to be held as convenient to schools.

Revised October, 1965



