



SCOTTISH EDUCATION DEPARTMENT

SCOTTISH  
LEAVING CERTIFICATE  
EXAMINATION

EXAMINATION PAPERS

1955



EDINBURGH: HER MAJESTY'S STATIONERY OFFICE

1955

PRICE 17s 6d NET



# SCOTTISH EDUCATION DEPARTMENT—1955

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## 1. STATUTORY INSTRUMENTS

### (a) Primary and Secondary Education

- The Schools (Scotland) Code, 1950. S.I. 1950. No. 915, S.62. 6d. (7½d.).
- The Schools Registration (Scotland) Rules, 1951. S.I. 1951, No. 569, S.29. 4d. (5½d.).
- The Pupil's Progress Record (Scotland) Rules, 1951. S.I. 1951, No. 694, S.33. 6d. (7½d.).
- The School Leaving Record (Scotland) Rules, 1951. S.I. 1951, No. 896, S.52. 3d. (4½d.).

### (b) Further Education

- The Central Institutions (Scotland) Recognition (No. 1) Regulations, 1950. S.I. 1950, No. 17, S.123. 1d. (2½d.).
- The Further Education (Scotland) Code, 1952. S.I. 1952, No. 2201, S.114. 3d. (4½d.).

### (c) Bursaries and Scholarships

- The Education Authority Bursaries (Scotland) Regulations, 1953. S.I. 1953, No. 1123, S.6d. (7½d.).
- The Supplemental Allowances (Scottish Scholars at English Universities) Regulations, 1949. S.I. 1949, No. 818, S.43. 1d. (2½d.).
- The Supplemental Allowances (Scottish Scholars at English Universities) (Amendment No. 1) Regulations, 1950. S.I. 1950, No. 466, S.34. 1d. (2½d.).
- The Education (Scotland) Fund Bursaries Regulations, 1950. S.I. 1950, No. 1014, S.77. 1d. (2½d.).

### (d) Teachers : Training, Salaries and Superannuation

- Regulations for the Preliminary Education, Training and Certification of Teachers for Various Grades of Schools, 1931. S.R. & O., 1931, No. 180, S.20. 5d. (6½d.).
- Regulations for the Preliminary Education, Training and Certification of Teachers for Various Grades of Schools (Scotland) (Amendment) Minute, 1940. S.R. & O., 1940, No. 1723, S.2d. (3½d.).
- Training of Teachers (Scotland) Regulations, 1947. S.R. & O., 1947, No. 128, S.5. 1d. (2½d.).
- Training of Teachers (Scotland) Regulations, 1949. S.I. 1949, No. 1909, S.129. 2d. (3½d.).
- The Teachers' Pensions (National Insurance Modifications) (Scotland) Regulations, 1948. S.I. 1948, No. 944, S.67. 3d. (4½d.).
- The Superannuation (Civil Servants and Teachers) (Scotland) Rules, 1950. S.I. 1950, No. 555. 3d. (4½d.).
- The Superannuation (Teaching and Local Government) (Scotland) Rules, 1951. S.I. 1951, No. 292, S.11. 6d. (7½d.).
- The Superannuation (Teaching and Health Education) (Scotland) Rules, 1951. S.I. 1951, No. 571. 3d. (4½d.).
- The Superannuation Scheme for Teachers (Scotland), 1952, Approval Order, 1952. S.I. 1952, No. 464. 1s. 3d. (1s. 4½d.).
- The Superannuation Rules for Teachers (Scotland), 1952. S.I. 1952, No. 567, S.20. 6d. (7½d.).
- The Superannuation (Teaching and Public Boards) (Scotland) Rules, 1952. S.I. 1952, No. 5109. 6d. (7½d.).
- The Teachers' Pensions (National Service) (Scotland) Rules, 1952. S.I. 1952, No. 518. 3d. (4½d.).
- The Teachers (Special Recruitment) (Scotland) Regulations, 1952. S.I. 1952, No. 660. 3d. (4½d.).
- The Training of Teachers (Scotland) (Amendment No. 7) Regulations, 1953. S.I. 1953, No. 1396. 2d. (3½d.).
- The Teachers' Salaries (Scotland) Regulations, 1954. S.I. 1954, No. 403, S.41. 1s. (1s. 1½d.).

### (e) Grant Regulations

- Educational Development Research and Services (Scotland) Grant Regulations, 1946. S.R. & O., 1946, No. 1267, S.53. 1d. (2½d.).
- The Central Institutions (Scotland) Grant Regulations, 1947. S.R. & O., 1947, No. 2221. 2d. (3½d.).
- The Education Authorities (Scotland) Grant Regulations, 1948. S.I. 1948, No. 961. 2d. (3½d.).
- The Education (Scotland) Miscellaneous Grants Regulations, 1948. S.I. 1948, No. 2767. 1d. (2½d.).
- The Residential Special Schools and Orphanages (Scotland) Grant Regulations, 1948. S.I. 1948, No. 2768, S.203. 1d. (2½d.).
- The Further Education (Voluntary Associations) (Scotland) Grant Regulations, 1952. S.I. 1952, No. 2202, S.115. 3d. (4½d.).

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# SCOTTISH LEAVING CERTIFICATE EXAMINATION

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The Scottish Leaving Certificate Examination is held annually by the Scottish Education Department. In 1955 it commenced on Tuesday, 8th March.

For information as to the purpose and scope of the Examination, and as to the conditions on which pupils (of Scottish schools) may be presented, reference should be made to the Department's circular 30 (1954), dated 24th Sept. 1954. (Price 1s. 3d.; post free 1s. 4½d.)

Note:—Further copies of the Ordnance Survey map extract used in the Higher Geography First Paper may be purchased direct from the Ordnance Survey Office, Leatherhead Road, Chessington, Surrey.

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## EXAMINATION PAPERS

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### ENGLISH

LOWER GRADE—(FIRST PAPER—COMPOSITION)

Wednesday, 9th March—9.30 A.M. to 10.30 A.M.

Marks will be deducted for bad spelling and bad punctuation, and for writing that is difficult to read.

Write an appropriate title at the head of your composition.

The value attached to the question is shown in brackets after the question.

Write a composition of about three foolscap pages in length on any one of the following subjects :—

- (a) A description of a visit paid to **one** of the following :—a circus ; a bird sanctuary ; a ceilidh ; highland games ; an agricultural show ; a pageant ; a regatta ; the launching of a ship.
- (b) Suppose that you have been asked to address an adult society in your neighbourhood on " My School." Write your speech.
- (c) Imagine that at the end of your school career you win a prize which is intended to enable you to visit a foreign country. What country would you choose to visit, and why ?
- (d) What would you like, and what would you dislike, in the life of **one** of the following :—an errand boy ; a village policeman ; a school secretary ; a shepherd ; a fisherman ; a clerk in an office or bank ; a shop girl ; a worker in a garage ; a factory employee. (35)

## ENGLISH

## LOWER GRADE

(SECOND PAPER—INTERPRETATION, LANGUAGE, AND LITERATURE)

Wednesday, 9th March—11.0 A.M. to 1.0 P.M.

All candidates should attempt **FOUR** questions, namely, questions No. 1 and 2 and any **TWO** of the others.

Marks will be deducted for bad spelling and bad punctuation, and for writing that is difficult to read.

The value attached to each question, or to each part of a question, is shown in brackets after the question.

1. Such of the Scottish knights as remained alive returned to their own country. They brought back the heart of Bruce, and the bones of the good Lord James. The Bruce's heart was buried below the high altar in Melrose Abbey. As for his body, it was laid in a sepulchre in the midst of the church of Dunfermline, under a marble stone. But the church becoming afterwards ruinous, and the roof falling down with age, the monument was broken to pieces, and nobody could tell where it stood. But a little while ago, when they were repairing the church at Dunfermline, and removing the rubbish, lo ! they found fragments of the marble tomb of Robert Bruce. Then they began to dig farther, thinking to discover the body of this celebrated monarch ; and at length they came to the skeleton of a tall man, and they knew it must be that of King Robert, both as he was known to have been buried in a winding sheet of cloth of gold, of which many fragments were found about this skeleton, and also because the breastbone appeared to have been sawn through, in order to take out the heart. So orders were sent from the King's Court of Exchequer to guard the bones carefully, until a new tomb should be prepared, into which they were laid with profound respect. A great many gentlemen and ladies attended, and almost all the common people in the neighbourhood ; and as the church could not hold half the numbers, the people were allowed to pass through it, one after another, that each one, the poorest as well as the richest, might see all that remained of the great King Robert Bruce, who restored the Scottish monarchy. Many people shed tears ; for there was the wasted skull which once was the head which thought so wisely and boldly for his country's deliverance ; and there was the dry bone which had once been the sturdy arm that killed Sir Henry de Bohun, between the two armies, at a single blow, on the evening before the battle of Bannockburn. Sir Walter Scott.

Read through the passage printed above and then answer the following questions on it :—

- (a) Express in your own words the meaning of each of the following phrases **as they are used in the passage** :—*with profound respect* (line 17) ; *restored the Scottish monarchy* (lines 21 and 22) ; *thought so wisely and boldly for his country's deliverance* (lines 23 and 24). (7)
- (b) Suggest single words which might have been used in place of the following phrases :—*remained alive* (line 1) ; *falling down* (line 6) ; *broken to pieces* (line 6) ; *a little while ago* (line 7) ; *winding sheet* (line 12).

Give an alternative phrase for *one after another* (line 20). (6)

- (c) Form adjectives from *fragment*, *sepulchre*, *monument*, *respect*; a noun from *inter*; and a verb from *tomb*. (3)
- (d) Give a general analysis of the sentence, "So orders were sent . . . profound respect." (lines 15-17). (3)
- (e) Why was the exact place of burial forgotten? (2)
- (f) What led to the discovery, and why was the identity of the skeleton certain? (4)
- (g) What were the memories which made the spectators weep? Point out in the passage two other signs of Scottish admiration for Bruce. (6)
- (h) Tell briefly, **in the first person**, the story of the discovery, as it might have been recounted by one of the workmen. (6)
- (i) Suggest a title for the passage. (2)

2. Write a short letter acknowledging the receipt of a catalogue which you have asked a large general store to send to you, and expressing your appreciation of the contents. (6)

3. Write an account of **one** of the following :—

- (a) Shylock's plan for revenge ;
- (b) Rosalind's adventures in Arden ;
- (c) the plot against Malvolio ;
- (d) the conspiracy against Julius Caesar ;
- (e) the fencing-match in "Hamlet" ;
- (f) the murder of Duncan ;
- (g) the triumph of Prospero. (10)

4. Choose **one** poem which describes a journey (by land or sea), **or** a desperate fight, **or** a shipwreck, **or** a beautiful scene. Give the author's name, outline the content of the poem, and bring out any points in it which have interested you. (10)

5. Taking any novel which you have enjoyed reading, show how the author gives his story a happy ending, or a sad ending, as the case may be. (10)

6. Describe in your own words an incident full of excitement or danger from a prose book (novel, biography, or book of adventure) which you have read. (10)

7. Select **two** passages, one showing (a) the more humorous side, and one showing (b) the more serious side of **one** of the following writers :—

Chaucer ; Addison ; Goldsmith ; Burns ; Lamb.

Write a **very brief** account of the content of the passages and say why you think your choice is a good one. (10)

## ENGLISH

HIGHER GRADE—(FIRST PAPER (a)—COMPOSITION)

Wednesday, 9th March—9.30 A.M. to 10.30 A.M.

Marks will be deducted for bad spelling and bad punctuation, and for writing that is difficult to read.

Write an appropriate title at the head of your composition.

The value attached to the question is shown in brackets after the question.

Write a composition of **about three foolscap pages in length** on any one of the following subjects :—

- (a) What attractions—historical, civic, industrial, scenic—would you take a visitor from another country to see in your town or village or county ?
- (b) “Myself ten years hence”.
- (c) Do you think that it is a good thing for young men to put in a period of national service ?

or

Do you think that young women as well as young men should be compelled to put in a period of national service ?

- (d) A description of any **one** of the following :—a visit to a foreign country as a member of a school party ; an industrial exhibition ; your ideal classroom ; a street accident ; the best hour of the day ; your most amusing experience.

- (e) “Peace hath her victories  
No less renowned than war.”

Using this quotation as a text, describe some of the benefits that mankind has obtained from the work done in any **one** of the following fields :—medicine, exploration, mechanical invention, social reform.

(35)

## ENGLISH

HIGHER GRADE—(FIRST PAPER (b)—INTERPRETATION AND LANGUAGE)

Wednesday, 9th March—11.0 A.M. to 12.40 P.M.

**Answer Questions 1, 2 and 3.**

Marks will be deducted for bad spelling and bad punctuation, and for writing that is difficult to read.

The value attached to each question, or to each part of a question, is shown in brackets after the question.

1. There are two methods on which biography may consistently be written. The first of these is what we may call the exhaustive method. Every fact which is known about the hero may be told us ; every thing which he did, every thing which he would not do, every thing which other people did to him, every thing which other people would not do to him, may be narrated at full length. We may have a complete picture of all the events of his life, all which he underwent, and all which he achieved. We may, as Mr. Carlyle expresses it, have a complete account " of his effect upon the universe, and of the effect of the universe upon him." We admit that biographies of this species would be very long and generally very tedious ; we know that the world could not contain very many of them ; but nevertheless the principle on which they may be written is intelligible. The second method on which the life of a man may be written is the selective. Instead of telling everything, we may choose what we will tell. We may select out of the numberless events, from among the innumerable actions of his life, those events and those actions which exemplify his true character, which prove to us what were the true limits of his talents, what was the degree of his deficiencies, which were his defects, which his vices ; in a word, we may select the traits and the particulars which seem to give us the best idea of the man as he lived and as he was. On this side the flood, as Sydney Smith would have said, we should have fancied that this was the only practicable principle on which biographies can be written about persons of whom many details are recorded. For ancient heroes the exhaustive method is possible. All that can be known of them is contained in a few short passages of Greek and Latin, and it is quite possible to say whatever can be said about every one of these : the result would not be unreasonably bulky, though it might be dull. But in the case of men who have lived in the thick of the crowded modern world, no such course is admissible. The author must choose the characteristic parts of his subject ; and all that he has to take care of besides is so to narrate them that their characteristic elements shall be shown ; to indicate their respective bearings to one another ; to delineate what is expressive in such a manner as will make it expressive.

Walter Bagehot.

Read through the passage printed above, and then answer the following questions on it :—

- (a) Explain briefly but clearly the meaning of the following phrases as they are used in the passage :—

*his effect upon the universe* (line 8) ; *exemplify his true character* (lines 15–16) ; *the degree of his deficiencies* (line 17) ; *on this side the flood* (line 19). What is meant by *ancient heroes* (line 22) ? Illustrate by giving one example. (10)

- (b) (i) Give the meaning of the following words as they are used in the passage :—

*species* (line 9) ; *talents* (line 16) ; *practicable* (line 20). What is the origin of the use of the word *talents* ?

- (ii) Give the opposites of the words [*defects* (line 17) and *vices* (line 17)].

- (iii) Suggest a single noun that means *the story of one's own life written by oneself*, and a single adjective that means *before the flood*. (8)

- (c) (i) State the kind of each of the following clauses :—  
*what were the true limits of his talents* (line 16) ; *though it might be dull* (line 25) ; *as will make it expressive* (line 31).
- (ii) Choose from the passage **one** example of each of the following :—  
 an adjectival phrase ; an adverbial phrase of place ; a gerund.
- (iii) Comment briefly on the use of *will* in *what we will tell* (lines 13-14), and on the use of *shall* in *their characteristic elements shall be shown* (line 29). (8)
- (d) Express in your own words, as tersely and intelligibly as you can, the substance or drift of the last sentence—*The author must choose . . . expressive* (lines 27-31). (5)
- (e) Make a summary of the passage in two paragraphs, bringing out clearly the distinction between the two kinds of biography referred to. [Your summary should not exceed 100 to 120 words]. (14)

2. Combine the following statements into a compact, well-constructed paragraph, making as skilful a use of subordination as you can :—

The eagle drew near with his prey—he saw his mate winging some way off—a large duck hung from her talons—they met at the edge of the nest—their half-fledged nestlings thrust up gaping beaks to greet them—the parent birds fed choice morsels to these beaks—the nestlings were only about half the size of their parents—their appetites were prodigious—they devoured their meal greedily—the food disappeared in a few moments—their hunger was assuaged—the old birds flew off to forage for themselves—they left behind on the threshold of their home a heap of bones and feathers. (10)

3. (a) Write a short letter to a newspaper (local or national) in reply to a suggestion that boys and girls should refuse to surrender their seats to their elders in crowded buses or trams.

or

(b) Write a short letter to the manager of the local cinema asking that a larger proportion of British films should be shown. (10)

## ENGLISH

HIGHER GRADE—(SECOND PAPER—LITERATURE)

Wednesday, 9th March—2.0 P.M. to 3.30 P.M.

All candidates should attempt **THREE** questions, namely, question No. 1 and **ANY TWO** of the others.

Marks will be deducted for bad spelling and bad punctuation, and for writing that is difficult to read.

The value attached to each question is shown in brackets after the question.

All candidates should attempt **THREE** questions, namely, question No. 1 and **ANY TWO** of the others.

1. (a) "The heroines of Shakespeare's comedies are young women of considerable independence of character." Discuss this statement with reference to any **one** of the comedies.

Or

(b) "A great play should sustain the interest of the readers or spectators, win their sympathy, and leave them with something to think about." Discuss this view with reference to any **one** of Shakespeare's tragedies.

Or

(c) Choose any **one** of the following topics ; develop it as fully as you can, making use, where necessary, of apt, illustrative quotation :—

- (i) Is Lady Macbeth entirely in Macbeth's confidence ?
- (ii) Do all the characters in *Hamlet* think that the hero of the play is mad ?
- (iii) Who is the real hero of the play that bears the name of Julius Caesar ? (Give reasons for your choice.)
- (iv) In what characters in the play is King Lear able to inspire devotion ?
- (v) For what reasons does Caliban arouse our sympathy ? (20)

2. (a) Select **one** of the following pairs of pilgrims from Chaucer's *Prologue* to the *Canterbury Tales*, and contrast the two characters :—

- (i) The Prioress and the Wife of Bath ;
- (ii) The Monk and the Poor Parson ;
- (iii) The Friar and the Clerk of Oxenford.

Or

(b) "Chaucer loves to embellish a tale with matter or comment not strictly relevant to the story as a story." Discuss and illustrate this statement with reference to any **one** of the *Canterbury Tales*. (15)

3. "In *L'Allegro* and *Il Penseroso* the ear predominates over the eye." Do you agree that in these poems Milton has assigned more importance to sounds than to sights ? Illustrate your answer by quotation. (15)

4. Choose any **one** of the following works, assign a date to the author, and explain why the work selected holds a prominent place in the prose literature of our country :—Bunyan's *The Pilgrim's Progress* ; Swift's *Gulliver's Travels* ; Defoe's *Robinson Crusoe* ; Boswell's *Life of Dr. Johnson* ; Froude's *English Seamen in the Sixteenth Century* ; Newman's *Apologia pro vita sua* ; Arnold's *Essays in Criticism*. (15)

5. Give the name of an essay (and of the author) dealing with **one** of the following subjects and then write a fairly full account of the essay you choose :—gardens, schooldays, country life, life in London, travel, an historical character, books, memories. (15)

6. (a) *Lycidas, Elegy written in a Country Churchyard, The Deserted Village, Michael, Marmion, Morte d'Arthur, Ulysses, Sohrab and Rustum.*

What features of the story, description, and language have you found to be particularly moving in any **one** of the above poems?

**Or**

(b) Discuss the poet's treatment of the main character in any **one** of the following poems :—

*Alexander's Feast, The Rape of the Lock, The Bard, Tam o' Shanter, The Ancient Mariner, Isabella, The Pied Piper of Hamelin, The Bishop orders his Tomb at St. Praxed's Church.* (15)

7. Many novelists make use of their knowledge of a particular geographical region **or** of a particular class in society. Name any novelist who seems to you to do this and describe the picture he (or she) gives us of the particular region **or** class. (15)

8. From your knowledge of the poetry of Burns **or** Wordsworth **or** Shelley discuss the poet's attitude to birds **or** flowers. (15)

9. Select **one** of the following characters, give the name of the book in which he or she appears and of the author of the book, and then trace briefly the part played in the story by the character you choose :—Dinah Morris, Edie Ochiltree, Alan Breck, Wilkins Micawber, Emma Woodhouse, Beatrix Esmond, Henry Gow, Soames Forsyte, Meg Merrilies, Mark Tapley, Angel Clare. (15)

10. Choose any book (other than a novel) dealing with Scottish history, Scottish life, Scottish character, or Scottish scenery ; give a short account of it, mentioning particularly the features in the book that have most strongly appealed to you. (15)

## HISTORY

### LOWER GRADE

Thursday, 10th March—9.30 A.M. to 12 NOON

All candidates must attempt **FIVE** questions, viz., Section 1 and **FOUR** other questions selected from any part or parts of the paper.

**N.B.**—Marks will be deducted for bad spelling and bad punctuation, and for writing that is difficult to read.

The value attached to each question, or to each part of a question, is shown in the margin.

**Section 1 (to be attempted by all candidates)**

(See separate sheet provided for this section.)

Marks

20

Marks

**Section 2 (55 B.C. to A.D. 1714)**

1. Describe briefly how **either** Scotland **or** England came to be united under one ruler. 20
2. Write notes on **two** of the following :—Agricola, Domesday Book, Thomas Becket, Edward I's Scottish policy, the Scottish parliament in the later Middle Ages, the causes of the Wars of the Roses. 20
3. Do you consider **either** Henry VII of England **or** James IV of Scotland to have been a great king? Give reasons. 20
4. Trace in outline the main events from the accession of Mary Stewart which led up to the Treaty of Edinburgh. 15  
What justification is there for calling that treaty a turning point in Scottish history? 5
5. Give an account of England's relations with Spain in the reigns of Mary and Elizabeth Tudor. (Details of naval or military campaigns should not be included.) 20
6. Describe Charles I's financial expedients from his accession to the summoning of the Long Parliament. 15  
State very briefly any causes of trouble other than financial. 5
7. Give an account of Cromwell's domestic policy after the expulsion of the Rump and explain why the Commonwealth came to an end. 20
8. Trace and explain the events of James II's reign that led to the Revolution of 1688. 20
9. What were the main achievements in home and foreign affairs of Queen Anne's reign? 15  
Does the reign deserve to be called a glorious one? 5

**Section 3 (1714 to the present day)**

10. Give an account of the British and French colonies on the mainland of North America about the year 1750 and show what advantages each side possessed. 20
11. By what methods did the farmers of **either** Scotland **or** England increase production in the eighteenth century? 20
12. State briefly why Britain and France went to war in 1793? 5  
What part did Britain play in the war up to 1802? 15
13. Give reasons why there was a demand for parliamentary reform in the years preceding 1832, and show how far the Reform Act of 1832 met that demand. 20
14. What were the terms of the Treaty of Paris (1856) and what were the further developments in the Eastern Question up to the Treaty of Berlin? 20

15. How do you account for the success of the Liberals in the election of 1906 ?

5

What were their main achievements in home affairs up to 1914 ?

15

16. Write notes on **two** of the following :—

(1) The causes of Lord Durham's mission to Canada.

(2) The construction of the Canadian Pacific Railway and its importance.

(3) The causes of the Great Trek.

(4) Paul Kruger.

20

17. Write notes on **two** of the following :—The effects of the rebellion of 1745 on the Highlands, the Diplomatic Revolution of 1756, James Watt, Robert Owen, Abraham Lincoln, Disraeli's domestic policy, the Treaty of Versailles (1919).

20

18. **Either** Give an account of the projects for the defence of Western Europe proposed since the second world war.

or What problems have confronted the British Empire in Africa (apart from the Union of South Africa) since 1945 ?

or To what extent have economic problems in Scotland in the twentieth century been distinct from those in England ?

20

## HISTORY

### HIGHER GRADE

#### (FIRST PAPER—BRITISH HISTORY)

Thursday, 10th March—9.30 A.M. to 12 NOON

All candidates must attempt **FIVE** questions, viz., **Section 1** and **FOUR** questions selected from any part or parts of the paper.

N.B.—Marks will be deducted for bad spelling and bad punctuation, and for writing that is difficult to read.

20 marks are assigned to each question.

#### Section 1 (to be attempted by all candidates)

(See separate sheet provided for this section.)

#### Section 2 (55 B.C. to A.D. 1485)

1. What contributions did Alfred make to the development of England ?

2. Estimate the importance for Scotland of the reigns of Malcolm Canmore and his sons.

3. "Edward I meant to be a great king and he was." Do you consider that he was ?

4. What do you know of the medieval town in **either** England **or** Scotland ?

5. Write notes on **two** of the following : the Romans in Scotland—Domesday Book—medieval agriculture in Scotland or England—John Balliol—the Black Death—Cardinal Beaufort.

**Section 3 (1485 to 1763)**

6. "The Reformation in England was at once a political, a religious and a social event." On what grounds can this opinion be defended?
7. How far was the foreign policy of Elizabeth I based upon concern for Protestantism?
8. Do you consider that the Civil War was due mainly to the unwise policy of Charles I?
9. Account for the changed relations of Charles II with the Cavalier Parliament between its election and its dissolution.
10. How far did (a) England and (b) Scotland gain or lose by the Union of 1707 in the fifty years that followed.
11. Why was Britain more successful in the Seven Years War than in the War of the Austrian Succession?

**Section 4 (1763 to 1914)**

12. Do you consider that in domestic affairs the Younger Pitt was on the whole more liberal or reactionary?
13. Do you consider the reforms of the years 1822–1829 or those of 1830–1835 to have been the more beneficial?
14. Why have the years 1840–1846 been called the "hungry 'forties" and why did conditions improve thereafter?
15. **Either**—Compare the importance of Lord William Bentinck and the Marquis of Dalhousie in the history of India.  
or To what extent had Canada become a nation by 1914?
16. Discuss the view that the Gladstone government of 1880–1885 was a failure.
17. Show the chief stages in the development of the Trade Union movement from the mid-nineteenth century to 1914.
18. Write notes on **two** of the following :—John Wesley—Henry Grattan—Edward Gibbon Wakefield—the Jameson Raid—Joseph Chamberlain—the Russo-British Agreement of 1907.

## HISTORY

## HIGHER GRADE

## (SECOND PAPER—EUROPEAN HISTORY)

Thursday, 10th March—1.30 P.M. to 4.0 P.M.

All candidates must attempt **FIVE** questions, viz., Section 1 and **FOUR** other questions selected from any part or parts of the paper.

**N.B.**—Marks will be deducted for bad spelling and bad punctuation, and for writing that is difficult to read.

**20** marks are assigned to each question.

**Section 1 (to be attempted by all candidates)**

(See separate sheet provided for this section.)

**Section 2 (*Greek and Roman History to A.D. 410*)**

1. Describe briefly the Persians' war against Greece in 480–479 B.C. and account for the failure of the Persians.

2. Compare the political systems of Athens and Sparta at the outbreak of the Peloponnesian War. Which seems to you the better?

3. Describe the constitution of the Roman Republic at the beginning of the first century B.C.

4. "There has never been a more valuable government than that of Augustus Caesar." On what grounds does he deserve high praise as a ruler?

5. Compare the importance of the Emperors Diocletian and Constantine in the history of the Roman Empire.

6. Write notes on **two** of the following :—The Ionian Revolt; Pericles; Greek Drama; Dionysius of Syracuse; the Second Punic War; Caius Gracchus.

**Section 3 (*Medieval History, 410 to 1453*)**

7. Describe briefly the barbarian invasions of the fifth century.

8. "The twelfth-century renaissance." Can this term be justified?

9. Discuss the view that Philip IV of France completed the work begun by Philip II (Augustus).

10. "The policy of Emperor Frederick II involved the end of German unity." Discuss this statement.

11. Explain the causes of the Conciliar movement in the Church of the fifteenth century and show why it was not more successful.

12. Write notes on **two** of the following :—The Partition of Verdun; the Normans in Italy and Sicily; Otto the Great; the Union of Kalmar; Joan of Arc; the Visconti of Milan.

**Section 4** (*Modern History (A), 1453 to 1763*)

13. Estimate the debt of the Continental Reformation to the Renaissance.
14. Trace and account for the successful rising of the Dutch Netherlands.
15. Explain the steps by which Sweden became a great power in the seventeenth century.
16. How far was the foreign policy of Louis XIV in the best interests of France?
17. Do you consider that Frederick the Great bears the chief share of responsibility for the European Wars of 1740–48 and 1756–63?
18. Write notes on **two** of the following :—Charles VIII's invasion of Italy ; The foundation of the Jesuit Order ; Frederick, Elector Palatine ; John Sobieski ; Cardinal Alberoni ; The War of the Polish Succession.

**Section 5** (*Modern History (B) 1763 to 1914*)

19. To what extent did Austrian and Russian interests agree or differ between the end of the Seven Years' War and the third Partition of Poland?
20. "If the conquests of Napoleon were ephemeral, his civilian work in France was built upon granite." Discuss this opinion.
21. Explain the merits and defects of the Congress System (1815–1825) and show why it was abandoned.
22. How far is it true that the Revolutions of 1848 only resulted in more reactionary government than before?
23. Estimate the effects of the fall of Bismarck on Germany and on Europe.
24. Write notes on **two** of the following :—Robespierre ; the Kingdom of the Netherlands (1815–1830) ; Count Cavour ; the importance of Bulgaria between 1876 and 1885 ; the Dreyfus case ; the Balkan Wars of 1912–1913.

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**GEOGRAPHY****LOWER GRADE**

Friday, 11th March—9.30 A.M. to 12 NOON

Candidates should attempt **SEVEN** questions, viz., the three questions of Section A, together with four other questions (from Sections B and C), of which **ONE** but not more than **TWO** must be from Section B, the remainder being from Section C.

Candidates should read the questions carefully. The answers should be clearly expressed and entirely relevant.

N.B.—Write legibly and neatly, and leave a space of about half an inch between the lines.

Marks will be deducted for bad spelling and bad punctuation, and for writing that is difficult to read.


The value attached to each question, or to each part of a question, is shown in the margin.

## SECTION A

The whole of this Section should be attempted


Marks

1. On the accompanying map of Scotland :—

- (a) Mark and name : Inverness ; Hawick ; Perth ; Dumfries. 2
- (b) Print over appropriate areas : Merse ; Buchan ; Galloway ; Trossachs. 2
- (c) Insert and name towns in the Central Valley of Scotland noted for the manufacture of the following (**one town for each**), printing after each name the letter given in brackets :—  
carpets (C) ; linoleum (L) ; jute (J) ; chemicals (H). 4
- (d) In the margin of the map print the mean monthly temperatures for July and January and the average annual rainfall of your school area. 1½
- (e) Mark thus, , and name **three** aerodromes in use in Scotland to-day. Include a trans-Atlantic terminus and after its name add the letter T. 3½

(13)

2. On the accompanying map of the world :—

- (a) Name the passes marked A, B, C, and D, the mountains E, F, G, and H, the plains K and L, and the plateaus M and N. 3
- (b) Mark and name **one** town in each of the following continents with more than 1,000,000 inhabitants :—  
Africa ; Australia ; South America. 3
- (c) Each of the areas numbered 1, 2, 3, and 4 is noted for **one** of the following : sheep farming ; plantation agriculture ; heavy industry ; fruit farming. Beside each number print the appropriate activity. 2
- (d) For the **four** areas marked thus, , name the season of **maximum** rainfall. Seasons should be named in relation to the country concerned. 2
- (e) Print over appropriate areas : Bantu ; Ainu ; Berber ; Eskimo. 2

(12)

3. Examine the contour map supplied and note that certain contours are incomplete, that part of one stream has been omitted, and that a selection of spot-heights has been inserted.

- (a) Using a vertical interval of 100 feet insert and number the omitted portions of the contours. 7
- (b) Complete the course of the stream lettered B and insert its tributaries. 2
- (c) Compare the courses of the **three** roads (coloured red on the map) and state, giving reasons for your answer, which is the most modern. 4
- (d) Explain why there is a town with factories at A but not at C. 2

(15)

## SECTIONS B and C

Candidates should attempt **FOUR** questions from Sections B and C. Of these **ONE, BUT NOT MORE THAN TWO**, must be from Section B, the remainder being from Section C.

In any question credit will be given for sketch-maps and diagrams.

## SECTION B

Marks

4. What differences would be observed between the duration of daylight in Lerwick and London (a) in January, and (b) in July. Give reasons for your answer which must include appropriate diagrams. (15)

5. (a) What is savanna ? 3  
 (b) Where is it found ? 2  
 (c) Select **one** area of savanna and describe its climate and its economic importance. 10  
 (15)

6. Describe briefly the landforms, climate, and vegetation which are characteristic of **one** of the following :—

Sahara Desert ; Greenland ; Highlands of Scotland ;  
 Amazon Basin. (15)

7. (a) Name **one** area explored or discovered by **each** of the following :—

Marco Polo	Nansen	Sturt	
Mungo Park	Captain Cook	Admiral Byrd	
Columbus	Livingstone		8

- (b) Select **one** and give a brief account of his journeys. 7  
 (15)

## SECTION C

British Isles

8. Attempt either (a) or (b) :—

(a) Write a **brief** geographical description of the area **within a radius of five miles** of your school. Sketch-maps are essential. (15)

(b) Account for the fact that of the three major physical divisions of Scotland the Central Valley has the greatest population. (15)

9. Attempt **either** (a) or (b) :—

(a) Station.	Temperature in °F.		Annual Rainfall in Inches.
	January.	July.	
A	47	61	32
B	41	56	50
C	39	57	30
D	45	59	56
E	39	62	22

*Marks*

These statistics are for Aberdeen, Cambridge, Scilly Isles, Stornoway, and Valencia, but they are **not** tabulated in that order. State which is which and give reasons for your answers. (15)

- (b) (i) Describe the position of Great Britain with regard to its advantages and disadvantages for trade. 7
- (ii) In what ways has this influenced the development of either Glasgow and Newcastle or Bristol and Leith? 8
- (15)

**Europe**

10. Describe the position, relief, and climate of **one** of the following areas and show their influence on its agriculture :—

Paris Basin ; Denmark ; Peninsular Italy ; Ukraine ; Belgium ; Finland. (15)

11. Attempt **either** (a) or (b) :—

(a) Write a geographical account of **one** of the following :—

- (i) The timber industry of Scandinavia ;
- (ii) Dairying in Switzerland ;
- (iii) Fruit growing in the Mediterranean ;
- (iv) The silk industry of France. (15)

(b) Write a geographical account of **any one** area in Europe noted for heavy industries. (15)

**The Rest of the World**

12. The St. Lawrence–Great Lakes Waterway is now being converted into the St. Lawrence Seaway. State briefly what is meant by this and discuss its importance to Canada and the United States. (15)

13. Describe briefly the relief and drainage of the United States and show their influence on the main lines of communication. (15)

14. Draw **two** sketch-maps to show the distribution of temperature, winds, and rainfall in the Indian sub-continent in June and **one** map to show the winds and rainfall in January. (15)

15. Account for the distribution of white settlers in Africa. (15)

16. For each of the following **climatic** areas in Australia state the corresponding area in South America. Give reasons for your answers.

South-Western Australia around Perth ; Sydney and the adjacent coasts of New South Wales ; Brisbane and the south-eastern coasts of Queensland. (15)

17. Write a geographical description of **one** of the following areas :—

Natal ; Uruguay ; Murray-Darling Basin ; North Island, New Zealand. (15)

## GEOGRAPHY

HIGHER GRADE—(FIRST PAPER)

Friday, 11th March—9.30 A.M. to 12 NOON

Candidates should attempt **FIVE** questions, viz., the two questions of Section A, together with any three questions taken from Section B.

Candidates should read the questions carefully. The answers should be clearly expressed and entirely relevant.

In any question credit will be given for appropriate sketch-maps and diagrams.

N.B.—Write legibly and neatly, and leave a space of about half an inch between the lines.

Marks will be deducted for bad spelling and bad punctuation, and for writing that is difficult to read.

The value attached to each question, or to each part of a question, is shown in the margin.

### SECTION A

The two questions of this Section should be attempted.

Marks

1. After studying the part of the one-inch map of the British Isles which is provided :—

(a) Write a descriptive account of the valley of the river Dee. 15

(b) (i) Compare the eastern slopes of Cairn Toul (9697) and Beinn a Bhuird (0999) with their western slopes. 5

(ii) Write a note on the distribution of corries in the area of this sheet. 5

(c) Discuss the distribution of woods around Creag Bhalg (0991). 5

(d) Explain the general absence of settlement and comment upon the sites of the few existing settlements (all in the south-east of the map). 6

(36)

2. On the accompanying map of part of Europe and the Mediterranean Lands :—

(a) Name the three rivers A, B, and C, the mountains D, E, and F, and the islands G and H. 2

(b) Mark with arrows to show direction and name :—

(i) the winds prevailing at Bergen and Crete during July ; and

(ii) Mistral, Bora, and Sirocco. 5

(c) If A represents less than 20 inches of rain per year, B 20 to 40 inches, and C over 40 inches, insert the appropriate letters at Odessa, Oporto, London, and Copenhagen. 2

(d) Mark and name **three** Alpine passes of which at least **one** must lead from France to Italy and **one** from Austria to Italy. 3

(e) Using the letters given in brackets mark areas **noted** for the following (**one** area for each) :—

Oranges (O) ; phosphates (P) ; flax growing (F) ; bauxite (B) ; silk manufacturing (S) ; tobacco growing (T) ; cork oak (C) ; raisins (R). 4

(16)

## SECTION B

Three questions should be attempted from this Section.

3. (a) Account briefly for the frequent seasonal flooding of **two** of the following rivers :—Ob ; Tigris ; Nile. 8

(b) Describe briefly how man deals with the problems raised by the flooding of rivers and what uses he makes of the floods. 8

(16)

4. " The development of certain tropical areas is closely associated with the growth of plantation agriculture." Expand this statement with reference to **one** large tropical area or to **one** crop (tea, coffee, rubber). (16)

5. Compare and contrast the North Atlantic and the North Pacific Oceans under the heads : (a) size ; (b) distribution of islands ; and (c) currents. (16)

6. The following table gives the climatic data for two stations. Indicate where, in your opinion, these stations are situated, stating clearly but briefly how you have reached your conclusions.

Months	J.	F.	M.	A.	M.	J.	J.	A.	S.	O.	N.	D.	Yr.
Temp. °F.	31	31	38	49	59	69	74	72	66	59	44	34	52
Rain In.	3.3	3.3	3.4	3.3	3.5	3.5	4.1	4.3	3.4	3.4	3.3	3.3	42.1

Temp. °F.	49	50	52	57	61	67	68	69	66	61	54	48	59
Rain In.	5.6	5.0	5.0	5.0	3.5	1.6	0.9	0.8	2.8	5.0	6.5	5.0	46.7

(16)

SCOTTISH LEAVING CERTIFICATE EXAMINATION—1955

GEOGRAPHY—HIGHER GRADE (FIRST PAPER)

QUESTION 9

Study this picture carefully before answering





Marks

7. Discuss, in relation to specific examples, rivers and mountains as natural frontiers. (16)
8. Describe in broad terms the distribution of population in either North America or Asia and account for the major concentrations. (16)
9. The accompanying air photograph of part of Scotland was taken at 2 p.m. Greenwich Mean Time.
- (a) In which direction was the camera facing at the time of photography? Give reasons for your answer. 3
- (b) Name the land form enclosed by the broken white line. 1
- (c) Write a brief description of the relief and land utilisation of the area. 12
- (16)

## GEOGRAPHY

HIGHER GRADE—(SECOND PAPER)

Friday, 11th March—1.30 P.M. to 4 P.M.

Candidates should attempt FIVE questions, viz., ONE question from EACH of the Sections A, B, C, and D, and a fifth from any Section.

Candidates should read the questions carefully. The answers should be clearly expressed and entirely relevant.

In any question credit will be given for appropriate sketch-maps and diagrams.

N.B.—Write legibly and neatly, and leave a space of about half an inch between the lines.

Marks will be deducted for bad spelling and bad punctuation, and for writing that is difficult to read.

The value attached to each question or part of a question is shown in the margin.

## SECTION A

Marks

1. Attempt (a) or (b) or (c) :—

- (a) For one of the following areas show how relief and distribution of population (within and without the area) have influenced the development of its main railways :—  
Southern Uplands ; England north of a line joining the Wash to the estuary of the Mersey. (20)
- (b) Select any two main railway routes of Britain, each of considerable length, and show how relief and centres of population have influenced the planning of the routes. (20)
- (c) Write a geographical account of the export trade of Eire and Northern Ireland. (20)

2. Select **either** the Outer Hebrides and the Channel Islands **or** Arran and the Isle of Wight and after describing their position compare and contrast their climate, industries, towns, and external communications.

(20)

3. Attempt **either** (a) **or** (b) :—

(a) Describe and account for the main types of farming in any **one** of the three major physical divisions of Scotland.

(20)

(b) Name and account for the industries of Sheffield, Norwich, Middlesbrough, and Bristol.

(20)

### SECTION B

4. What geographical factors help to account for the importance of Hamburg, Rhône-Saône Corridor, Vienna, and the English Channel?

(20)

5. Attempt **either** (a) **or** (b) :—

(a) Describe the relief and climate of **one** of the following and show how they have helped to shape its agriculture :—  
Brittany ; Paris Basin ; Ebro Basin ; Andalusia.

(20)

(b) Write a broad geographical description of Belgium and Holland, showing in your answer why such countries are densely peopled.

(20)

6. In what ways do the physical features and climate of Norway influence the life of its people?

(20)

### SECTION C

7. Select **one** of the following and compare and contrast the two areas mentioned :—

(i) Eastern and Western Pakistan ;

(ii) Newfoundland and Vancouver Island ;

(iii) California and the states of Washington and Oregon ;

(iv) Java and Ceylon.

(20)

8. A book on the United States mentions the following :—

Fall line ; truck farming ; Atlantic time ; Everglades ; hurricanes ; rice ; Black Belt of Alabama.

Write notes on **four** of them.

(20)

9. Attempt **either** (a) **or** (b) :—

(a) Give an account of the distribution of mining and industry in U.S.S.R. east of the Urals **or** China **or** India and Pakistan.

(20)

(b) (i) Where are the hot and cold deserts of Asia ?

5

(ii) Select a southern desert of Asia and explain the lack of rainfall. Illustrate your answer with a sketch-map.

15

(20)

## SECTION D

Marks

10. How have the plateaus and mountain ranges of Africa helped and hindered its development ?

(20)

11. Attempt **either** (a) or (b) :—

(a) Make a geographical comparison of Australia and Canada using the following statistics as the basis of your answer :—

	<i>Australia.</i> <i>per cent.</i>	<i>Canada.</i> <i>per cent.</i>
Arable and Orchard .. .. .	1.5	3.8
Permanent grass and pasture ..	47.9	3.1
Forest .. .. .	4.0	35.0
Waste and other land .. .. .	46.6	58.1

(20)

(b) Select **two** of the following Australian towns and after describing in broad terms the climate in the neighbourhood of each show how the climate has influenced the natural vegetation or farming :—

Darwin ; Perth ; Sydney.

(20)

12. Write a geographical description of **one** of the states of South America showing in your answer the extent of European influence on its development.

(20)

## ARITHMETIC

Tuesday, 8th March—9.30 A.M. to 10.45 A.M.

**Only FIVE questions should be answered.**

*Before attempting to answer any question, candidates should read the whole of it very carefully, since time is often lost through misapprehension as to what is really required.*

*Four-place logarithmic tables and tables of square roots are provided. The use of logarithms is permitted only in questions 9 and 10.*

*All the working must be legible and shown in its proper position in the answer, and, when necessary, the different steps should be clearly indicated.*

*20 marks are assigned to each question.*

**Marks will be deducted for careless or badly arranged work.**

**In questions 1 to 8 the use of logarithmic tables is not permitted.**

1. (i) Evaluate  $(0.3)^2 \times 2.16 \div 0.018$ .

(ii) Given that the rate of exchange is 14.51 Swedish kroner to the £, convert 200 Swedish kroner into sterling, neglecting any fraction of a penny in the answer.

2. A fire which is kept burning continuously uses  $\frac{1}{2}$  lb. of coal per hour from 11 p.m. to 8 a.m. and  $1\frac{1}{2}$  lb. of coal per hour from 8 a.m. to 11 p.m.

(i) Find the cost of coal for the fire per week if coal costs £7 per ton.

(ii) How many whole tons of coal must be ordered to supply the fire from 1st October till 31st March?

3. A canteen has a stock of

224 bread plates valued at 1s.  $5\frac{1}{2}d.$  each,

253 soup plates valued at 1s.  $8\frac{1}{2}d.$  each,

247 meat plates valued at 2s.  $3d.$  each,

229 dessert plates valued at 1s.  $7\frac{1}{2}d.$  each.

Calculate the total value of the stock of plates.

4. A married man, who has three children, has an annual salary of £1,530. An allowance of two-ninths of his salary, a joint allowance of £210 for himself and his wife, and an allowance of £85 for each of his children are free of income tax. On the rest of his salary he pays income tax at the following rates :—at 2s.  $6d.$  in the £ on the first £100, at 5s. in the £ on the next £150, at 7s. in the £ on the next £150, and at 9s. in the £ on the remainder.

Calculate the total amount of tax payable.

If the income tax is deducted from his salary in equal monthly instalments, find the man's net monthly salary.

5. The population of the county of Ayr was 285,217 in 1931 and 321,184 in 1951. Calculate, correct to the first decimal place, the percentage increase in population over the period.

The area of the county is 724,523 acres. What was the average number of people per square mile in 1951? Answer to the nearest whole number.

6. A motorist covered a distance of 200 miles at an average speed of 40 miles per hour. Assuming that his average speed for 35 miles through built-up areas was 25 miles per hour, what was his average speed for the rest of the journey?

If his car travels 32 miles for every gallon of petrol used when his average speed is 30 miles per hour, and 28 miles per gallon when his average speed is 40 miles per hour, how much more petrol does he use on this journey by travelling at an average speed of 40 miles per hour rather than at an average speed of 30 miles per hour, and how much less time does he spend on the journey?

7. A rectangular steel plate of uniform thickness measures 12 ft. by 4 ft. and weighs 1,100 lb. Two circular pieces of radius 10 in. are cut out of it. How much lighter does the plate become? Take  $\pi = \frac{22}{7}$ , and answer to the nearest lb.

8. A man holds £6,000 of a  $2\frac{1}{2}$  per cent. stock. He sells out at 120, and invests half of the proceeds in a 2 per cent. stock at 96 and the remainder in a  $1\frac{3}{4}$  per cent. stock at 90. Calculate the change in his annual income.

9. The internal measurements of a rectangular tin are  $6\frac{1}{4}$  in. by  $4\frac{1}{4}$  in. by 11 in. Using mathematical tables, calculate, as accurately as these tables allow, the capacity of the tin in gallons. Take 1 gallon as 0.1606 cubic feet.

How many such tins could be completely filled from a 500-gallon tank?

10. Use mathematical tables to evaluate

$$(i) \frac{23.51 \times 1.09}{102.8};$$

$$(ii) \sqrt{(0.315)^2 + (0.426)^2}.$$

## MATHEMATICS

### LOWER GRADE—(FIRST PAPER)

Monday, 14th March—9.30 A.M. to 11.30 A.M.

*Before attempting to answer any question, candidates should read the whole of it very carefully, since time is often lost through misapprehension as to what is really required.*

*Four-place mathematical tables are provided.*

*All the figures should be neatly drawn, and where it is necessary to turn over a page during the answer to a question, a rough copy of the figure MUST be drawn on the fresh page. All the steps of the proofs must be given, and it should be clearly shown on what assumptions the demonstrations are based. Where geometrical references are necessary, care should be taken to ensure that such references are clear and intelligible; text-book reference numbers should NOT be used.*

*The value attached to each question, or to each part of a question, is shown in the margin.*

**Marks will be deducted for careless or badly arranged work.**

## SECTION I

*All the questions in this Section should be attempted.*

Marks

1. Prove that an angle at the centre of a circle is twice any angle at the circumference standing on the same arc. 12

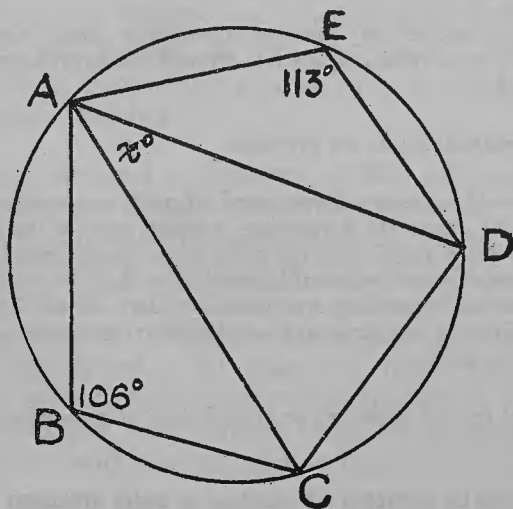
2. Prove that the internal bisector of an angle of a triangle divides the opposite side in the ratio of the sides containing the angle bisected. 12

3. Prove the formula  $\frac{a}{\sin A} = \frac{b}{\sin B}$  for a triangle ABC in which the angle A is obtuse. 6

Find the angles B and C of a triangle ABC in which the angle A is  $150^\circ$  and the ratio  $a : b = 3 : 1$ . 3

4. (In this question figures need not be reproduced. Except in (iii), references to theorems are not required.)

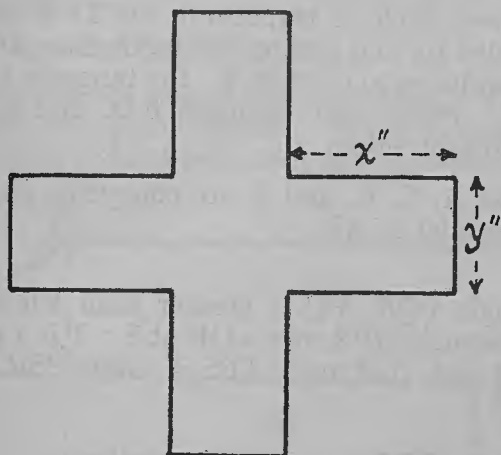
(i) A, B, C, D, and E are concyclic points ;  
angle ABC =  $106^\circ$  ; angle AED =  $113^\circ$  ; angle CAD =  $x^\circ$ .  
Find  $x$ . 4



Marks

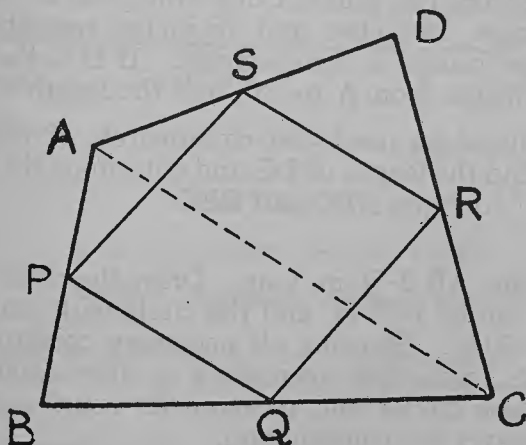
- (ii) In the cross shown in the accompanying diagram, each arm is  $x$  inches long and  $y$  inches broad. Express, in terms of  $x$  and  $y$ , (a) the perimeter of the cross; (b) the area of the cross.

4



- (iii) P, Q, R, and S are the mid-points of the sides of a quadrilateral ABCD. Prove that PQRS is a parallelogram.

4



- (iv) B is a fixed point on the circumference of a fixed circle with centre A. State, without proof, the locus of the mid-points of the chords of the circle which pass through B.

4

## SECTION II

Only **THREE** questions should be attempted from this Section.

Marks

5. In a given circle a trapezium ABCD is inscribed with AB parallel to, and greater in length than, DC ; AD and BC are produced to meet at E ; the tangents at A and C meet at F. Prove that triangles FAC and EAB are equiangular to each other.

8

Deduce that A, C, E, and F are concyclic, and prove that FE is parallel to AB.

9

6. In triangle PQR, PQ is greater than PR and the bisector of the angle QPR meets QR at S ; T is a point on QR produced such that angle TPS = angle PSR.

Prove that

(i) triangles PRT and QPT are similar ;

6

(ii)  $\frac{QS}{SR} = \frac{QT}{ST}$ . (Section I, 2)

11

7. The sides AB, BC, and CA of a triangle ABC are of lengths 13 inches, 14 inches, and 15 inches respectively. Prove that the triangle is acute-angled. If D is the foot of the perpendicular from A to BC, find the length of DC.

7

AD is produced to meet the circumcircle of triangle ABC at E. Find the length of DE and determine the ratio of the areas of triangles ABC and BEC.

10

8. Draw a line AB 2.50 in. long. Draw the circle with centre A and radius 1.75 in. and the circle with centre B and radius 0.60 in. Showing all necessary construction lines and arcs, construct accurately a direct common tangent to these circles and measure its length. State (but do not prove) the construction.

11

The direct common tangent is produced to meet AB produced at D. Calculate

(i) the size of the angle between AB and the common tangent ;

(ii) the length of BD.

6

Marks

9. A rectangular block ABCDEFGH has edges  $AB = 12$  units,  $AE = 3$  units, and  $AD = 4$  units. Calculate the length of a diagonal of the block.

4

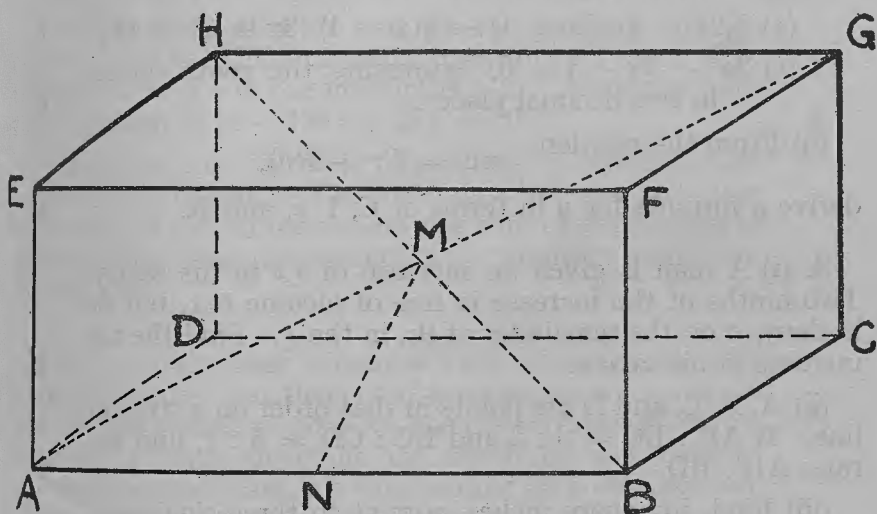
If the diagonals AG and BH intersect at M, and N is the mid-point of AB,

6

(i) find the length of MN ;

(ii) determine the size of the angle which MN makes with the plane ABCD. (Your answer should include a sketch indicating any construction lines.)

7



## MATHEMATICS

LOWER GRADE—(SECOND PAPER)

Monday, 14th March—1 P.M. to 3.30 P.M.

Before attempting to answer any question, candidates should read the whole of it very carefully, since time is often lost through misapprehension as to what is really required.

Four-place mathematical tables are provided.

All the working must be legible and shown in its proper position in the answer, and the different steps should be clearly indicated.

The value attached to each question, or to each part of a question, is shown in the margin.

Marks will be deducted for careless or badly arranged work.

## SECTION I

*All the questions in this Section should be attempted.*

Marks

1. (i) Use logarithms to evaluate

$$\sqrt{\frac{34.07 \times 0.00237}{0.8623}}.$$

6

- (ii) Factorize  $6x^2 + 6yz - 4xy - 9xz$ .

3

2. (i) Solve the equations

(a)  $\frac{1}{2}(2x - 1)(3x - 1) - \frac{2}{3}(x - 4)(3x + 2) = x^2$ ; 6

(b)  $2x^2 - 7x - 1 = 0$ , expressing the roots correct to two decimal places. 6

- (ii) From the relation  $nE = I(r + Rn)$ ,

derive a formula for  $n$  in terms of  $E$ ,  $I$ ,  $r$ , and  $R$ .

5

3. (i) A man is given an increase of  $\frac{1}{2}x$  in his salary. Two-ninths of the increase is free of income tax, but he is charged on the remainder at 9s. in the  $\pounds$ . Find the net increase in his salary.

3

(ii) A, B, C, and D are points in that order on a straight line. If  $AB : BC = 3 : 2$  and  $BC : CD = 5 : 7$ , find the ratio  $AB : BD$ .

4

(iii) Find, in square inches, correct to three significant figures, the area of the triangle whose sides are of lengths 7 inches, 8 inches, and 9 inches.

5

- (iv) Using your tables, find the values of the following:—

(a)  $\cos 39^\circ 26'$ ; (b)  $\sin 118^\circ 25'$ ; (c)  $\tan 114^\circ 36'$ . 3

4. Graph question—see separate sheet.

11

## SECTION II

Only **THREE** questions should be attempted from this Section.

5. (i) The volume of a cube is the same as that of a sphere of radius 3 inches. Find, correct to three significant figures, the length of an edge of the cube. (Take  $\pi = 3.142$ .)

6

## Marks

(ii) A motor car travels a certain distance at an average speed of  $a$  miles per hour and returns over the same distance at an average speed of  $b$  miles per hour. If the average speed for the double journey is  $c$  miles per hour, show that

$$\frac{2}{c} = \frac{1}{a} + \frac{1}{b}. \quad 4$$

Calculate the value of  $c$  when  $a = 33.4$  and  $b = 26.6$ . 6

6. (i) Multiply  $4x^2 + px - 10$  by  $3x - 1$ .

Find the value of  $p$  so that, in the product, the coefficient of  $x^2$  is  $-13$ , and verify that, for this value of  $p$ , the coefficient of  $x$  in the product is  $-27$ . Factorize fully the expression  $12x^3 - 13x^2 - 27x + 10$ . 9

(ii) Express the following statement in symbols and verify that it is true :—The difference between the cube of the sum of two numbers and the sum of their cubes is equal to three times the product of the numbers multiplied by their sum. 7

7. In a certain week a man worked 44 hours, his wife worked 40 hours, and their combined wages amounted to £15 18s. In a subsequent week the man worked 48 hours, including 4 hours overtime for which he was paid at double the normal rate, his wife worked 30 hours, her rate of pay having been increased in the interval by sixpence per hour, and their combined wages amounted to £16 19s. Find the original rates of pay per hour of the man and of his wife. 16

8. From an observation post A a point C has a bearing  $62^\circ$  East of North and a point D has a bearing  $46^\circ$  West of North. From a second observation post B, situated 8 miles due North of A, C has a bearing  $53^\circ$  East of South and D has a bearing  $24^\circ$  West of South.

Find the distances of C and D from A. Find also the distance from C to D. 9, 7

9. (i) The radius of a sphere varies as the cube root of the weight. If a metal sphere of radius 6 inches weighs 8 lb., find the radius of a sphere which is made of the same metal and weighs 27 lb. 5

Marks

(ii) If one side of a rectangle of area  $A$  square inches is increased in length by  $p$  per cent., and the other side is decreased by  $p$  per cent., express the new area in terms of  $A$  and  $p$ . Show that the area has been decreased, and find, in terms of  $p$ , the percentage decrease.

6, 2, 3

## MATHEMATICS

### HIGHER GRADE—(FIRST PAPER)

Monday, 14th March—9.30 A.M. to 11.30 A.M.

*Before attempting to answer any question, candidates should read the whole of it very carefully, since time is often lost through misapprehension as to what is really required.*

*All the figures should be neatly drawn, and, where it is necessary to turn over a page during the answer to a question, a rough copy of the figure MUST be drawn on the fresh page. All the steps of the proofs must be given, and it should be clearly shown on what assumptions the demonstrations are based. Where geometrical references are necessary, care should be taken to ensure that such references are clear and intelligible; text-book reference numbers should NOT be used.*

*Square ruled paper and four-place mathematical tables are provided.*

*The value attached to each question, or to each part of a question, is shown in the margin.*

**Marks will be deducted for careless or badly arranged work.**

### SECTION I

*All the questions in this Section should be attempted.*

Marks

1. Prove that the internal bisector of an angle of a triangle divides the opposite side in the ratio of the sides containing the angle bisected.

10

2. Prove that the medians of a triangle are concurrent, and that the point of concurrence is a point of trisection of each median.

11

B and C are fixed points on a given circle and A is a variable point on the major arc BC. Prove that the locus of G, the point of concurrence of the medians of the triangle ABC, is an arc of a circle passing through the points of trisection of BC.

5

Marks

3. Prove the formula

$$\cos (A + B) = \cos A \cos B - \sin A \sin B.$$

(A proof which assumes that  $A$ ,  $B$ , and  $A + B$  are positive acute angles will be accepted. If the formula is deduced from one of the other addition formulae, e.g. from that for  $\sin (A + B)$  or that for  $\cos (A - B)$ , the other formula must first be proved.)

8

Deduce formulae for  $\cos 2A$  and  $\cos 4A$  in terms of  $\cos A$ .

4

4. Prove the formula for the length of the line joining the points  $(x_1, y_1)$  and  $(x_2, y_2)$ .

6

If  $P$  is the point  $(\cos A, \sin A)$  and  $Q$  the point  $(-\cos B, \sin B)$ , show that  $PQ = \pm 2 \cos \frac{1}{2}(A + B)$ .

5

## SECTION II

Only THREE questions should be attempted from this Section.

5.  $ABC$  is an equilateral triangle, and  $X$  is a point on  $BC$ ;  $XYC$  is a second equilateral triangle on the opposite side of  $BC$  from  $A$ .

Prove that triangle  $AXC$  is congruent to triangle  $BYC$ .

4

$AX$  is produced to meet  $BY$  at  $Z$ . Prove that the angles  $AZB$ ,  $CZA$ , and  $YZC$  are each  $60^\circ$ .

6

$CZ$  cuts  $XY$  at  $D$ . Prove that  $BX : XC = XD : DY$ . (Section I, 1.)

7

6.  $L$  and  $M$  are the points of contact of the tangents from a point  $T$  to a circle with centre  $O$ ;  $P$  is any point on the minor arc  $LM$ , and the line through  $T$  parallel to  $PL$  cuts  $MP$  produced at  $Q$ .

Prove that (i)  $L$ ,  $M$ ,  $T$ , and  $Q$  are concyclic points, and that  $O$  lies on the circle passing through these points;

7

(ii)  $OQ$  bisects  $PL$ .

5

If the line through  $T$  parallel to  $PM$  cuts  $LP$  produced at  $R$ , prove that  $P$  is the orthocentre of triangle  $OQR$ .

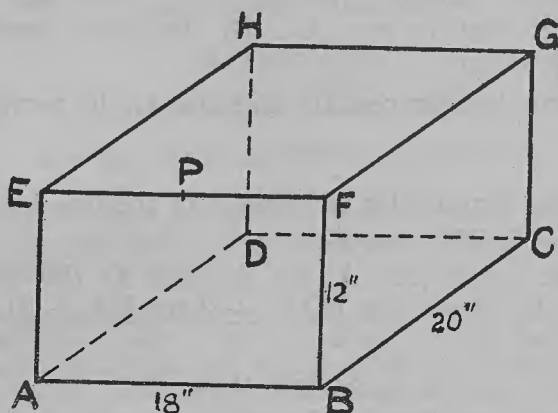
5

7.  $ABCDEFGH$  is a rectangular prism, as shown, having  $AB = 18$  in.,  $BC = 20$  in.,  $BF = 12$  in.;  $P$  is the mid-point of  $EF$ .

Marks

Calculate—

- (i) the length of PC ; 4  
 (ii) the size of the angle APC ; 8  
 (iii) the size of the angle which PC makes with the plane ABCD. 5



8. Prove that the equation of the tangent to the circle  $x^2 + y^2 = r^2$  at the point  $(x_1, y_1)$  on the circle is  $xx_1 + yy_1 = r^2$ . 5

Prove that the tangent to the circle  $x^2 + y^2 = 10$  at the point  $(-1, 3)$  on the circle is also a tangent to the circle  $x^2 + y^2 - 20x + 60 = 0$ . 6

Show in a rough diagram (which need not be drawn on squared paper) the positions relative to the coordinate axes of these circles and this common tangent. 3

Noting the symmetry of the figure, write down (or find) the equation of the other direct common tangent. 3

9. O is the centre of the circumcircle of an acute-angled triangle ABC, and the diameter through A meets BC at D.

Prove that, if R is the radius of the circumcircle,

$$(i) \quad AD = \frac{2R \sin B \sin C}{\cos (B - C)} ; \quad 8$$

$$(ii) \quad OD = \frac{R \cos A}{\cos (B - C)} . \quad 5$$

If also  $AO : OD = 3 : 1$ , show that  $\tan B \tan C = 2$ . 4

## MATHEMATICS

## HIGHER GRADE—(SECOND PAPER)

Monday, 14th March—1.0 P.M. to 3.30 P.M.

*Before attempting to answer any question, candidates should read the whole of it very carefully, since time is often lost through misapprehension as to what is really required.*

*Four-place mathematical tables are provided.*

*All the working must be legible and shown in its proper position in the answer, and the different steps should be clearly indicated.*

*The value attached to each question, or to each part of a question, is shown in the margin.*

**Marks will be deducted for careless or badly arranged work.**

## SECTION I

*All the questions in this Section should be attempted.*

**Marks**

1. Solve the equations :—

$$(i) \quad x + 2y - 2z = 3,$$

$$2x + 3y - 4z = 8,$$

$$3x - 4y + 6z = 23 ;$$

**6**

$$(ii) \quad abx^2 - (a - b)^2 x + a(b - 2a) = 0.$$

**5**

2. Simplify :—

$$(i) \log_2 \frac{25}{24} + \log_2 \frac{9}{40} - \log_2 \frac{15}{4} \text{ (without using tables) ;}$$

**5**

$$(ii) \left( \frac{a^4}{b^{\frac{2}{3}} c} \right)^{-\frac{3}{2}} \div \left( \frac{c^{\frac{3}{4}} \times \sqrt{a^3}}{a^{-3} \times \sqrt{b}} \right)^{-2}.$$

**6**

3. Factorize :  $x^3 - x^2 - 17x - 15.$

**3**

Write down the coordinates of the points in which the graph of the function  $x^3 - x^2 - 17x - 15$  cuts the  $x$ -axis, and find the gradient of the curve at each of these points. Between which two of these points does the graph lie below the  $x$ -axis ?

**7**

4. (i) Water flows steadily into a certain vessel which is of such a shape that the depth of the water at any instant varies as the cube root of the time during which the water has been flowing. After it has been flowing for half a minute, the depth is 9 inches ; how much longer must the water flow before the depth is 3 feet ?

**6**

Marks

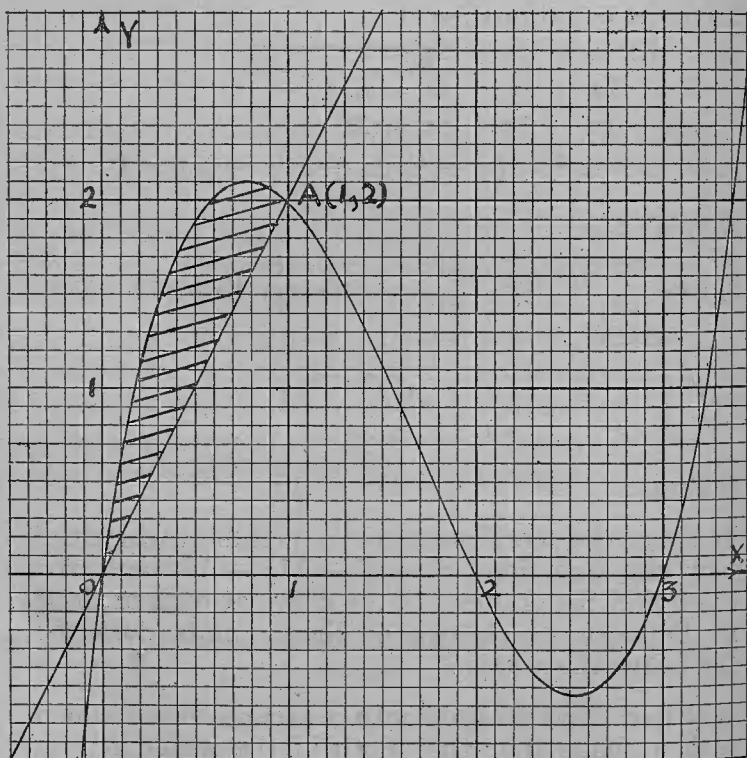
(ii) The point of intersection of two chords of a circle divides one chord in the ratio 3 : 5 and the other in the ratio 5 : 12. Find the ratio of the lengths of the chords. 6

5. Prove that, in any triangle ABC,

$$\tan \frac{1}{2}(A - B) = \frac{a - b}{a + b} \tan \frac{1}{2}(A + B). \quad 4$$

Two of the angles of a triangle measure  $78^\circ$  and  $32^\circ$  respectively, and the sides opposite these angles differ in length by 3 inches. Calculate the lengths of all the sides of the triangle. 9

6. The graph of  $y = x(x - 2)(x - 3)$  is shown below for a limited range of values of  $x$ .



(i) Read from the graph, to two decimal places, the minimum turning value of the function  $x(x - 2)(x - 3)$ , and the roots of the equation  $5x(x - 2)(x - 3) = 6$ . 4

Marks

(ii) The straight line shown on the graph cuts the curve at the origin and at the point A (1, 2). Find the coordinates of the third point in which this straight line would cut the curve.

5

(iii) Calculate the area between the straight line OA and the curve, i.e. the area shaded in the diagram.

6

## SECTION II

Only two questions should be attempted from this Section.

7. The first, second, and  $n$ th terms of a geometric progression are  $a$ ,  $b$ , and  $c$  respectively. Show that

$$n = \frac{\log \frac{bc}{a^2}}{\log \frac{b}{a}}.$$

8

Find the corresponding expression for  $n$  for an arithmetic progression whose first, second, and  $n$ th terms are  $A$ ,  $B$ , and  $C$  respectively, and find an expression in  $A$ ,  $B$ , and  $C$  for the sum of  $n$  terms of this arithmetic progression.

6

8. Write down the roots of the equation  $ax^2 + bx + c = 0$ .

Show that, if the roots are  $\alpha$  and  $\beta$ , then  $\alpha + \beta = -\frac{b}{a}$

and  $\alpha\beta = \frac{c}{a}$ .

3

The sum of the roots of a quadratic equation is 2, and the sum of the squares of the roots is 34. Find the equation.

5

For what range of values of  $a$  are the roots of the equation  $x^2 - 6x + a = 0$  real?

3

For what range of values of  $x$  is the function  $x^2 - 6x - 7$  negative?

3

9. If  $\cos x \cos y = \frac{\sqrt{3} - \sqrt{2}}{4}$  and  $\sin x \sin y = \frac{\sqrt{3} + \sqrt{2}}{4}$ , find the values of  $\cos(x + y)$  and  $\cos(x - y)$ , and hence find the values of  $x$  and  $y$  which lie between  $0^\circ$  and  $180^\circ$ .

6

Marks

If  $\theta$  is an angle between  $0^\circ$  and  $180^\circ$  which satisfies the equation

$$\sin \theta (2 + \cos 2\theta) = 1 + 2 \cos 2\theta,$$

find  $\sin \theta$  in surd form, and show that  $\cos 2\theta = 3\sqrt{3} - 5$ . 8

10. (i) Find from first principles the derivative of  $\sqrt{x}$  with respect to  $x$ . 4

Show that the derivative of  $x^{\frac{1}{2}} \left( x + \frac{1}{x} \right) \left( x - \frac{1}{x} \right)$  with respect to  $x$  is  $\frac{5x^4 + 3}{2x^{\frac{5}{2}}}$ . 3

(ii) A rectangular box with a square base and no lid is to be constructed so that its volume is 32 cubic inches. Prove that the dimensions of the box may be chosen so that the surface area has a minimum value, and find these dimensions. 7

### ELEMENTARY ANALYSIS

#### ADDITIONAL MATHEMATICAL SUBJECT

Wednesday, 16th March—9.30 A.M. to 12 NOON

*Before attempting to answer any question, candidates should read the whole of it very carefully, since time is often lost through misapprehension as to what is really required.*

**Not more than FOUR questions should be attempted from Section I, and not more than TWO questions from Section II.**

*Square-ruled paper and four-place mathematical tables are provided.*

*The value attached to each question, or to each part of a question, is shown in the margin.*

**Marks will be deducted for careless or badly arranged work.**

#### SECTION I

*Not more than FOUR questions should be attempted from this Section.*

1. (i) Solve the equations

$$\begin{aligned} 2xy - x - y &= 3, \\ x^2 + y^2 &= 9. \end{aligned}$$

Marks

6

(ii) If  $x$ ,  $y$ , and  $z$  are all different and

$$\begin{vmatrix} x & x^3 & x^2 + 1 \\ y & y^3 & y^2 + 1 \\ z & z^3 & z^2 + 1 \end{vmatrix} = 0,$$

prove that  $xyz = x + y + z$ .

9

Marks

2. (i) (a) Solve the equation

$$\tan^{-1}\left(\frac{1}{x}\right) = 2 \tan^{-1} x. \quad 4$$

- (b) Find the value of

$$2 \tan^{-1}\left(\frac{1}{3}\right) + \tan^{-1}\left(\frac{1}{9}\right) + \tan^{-1}\left(\frac{1}{32}\right). \quad 5$$

- (ii) Eliminate
- $\theta$
- between the equations

$$\begin{aligned} x &= a \cos \theta \cos 2\theta, \\ y &= b \sin \theta \cos 2\theta. \end{aligned} \quad 6$$

3. (i) Sum to
- $n$
- terms the series

$$1 + 3x + 5x^2 + \dots \quad 4$$

- (ii) Discuss, for all real values of
- $x$
- , the convergence of the series

$$(a) 1 + \frac{x}{3} + \frac{x^2}{5} + \frac{x^3}{7} + \dots; \quad 7$$

$$(b) \cos^2 x + 2 \cos^4 x + 3 \cos^6 x + 4 \cos^8 x + \dots \quad 4$$

4. Assuming that
- $\lim_{\theta \rightarrow 0} \left(\frac{\sin \theta}{\theta}\right) = 1$
- , prove from first principles that

$$\frac{d}{dx} (\tan x) = \sec^2 x. \quad 4$$

Differentiate the following functions with respect to  $x$ :

$$\begin{aligned} (i) \frac{(1+x)^2}{1-x}; & \quad (ii) \log_e \left(\frac{1+\tan x}{1-\tan x}\right); \\ (iii) \sin^{-1} \sqrt{(2x-x^2)}. & \quad 3, 4, 4 \end{aligned}$$

5. (i) Find the area enclosed by the parabolas
- $y = 2 + x + x^2$
- and
- $y = 6 + 3x - x^2$
- , and show that the common chord of the parabolas bisects this area.
- 10

- (ii) Prove by the methods of the integral calculus that the volume of a sphere of radius
- $r$
- is
- $\frac{4}{3}\pi r^3$
- .
- 5

## SECTION II

*Not more than two questions should be attempted from this Section.*

*Marks*

6. (i) Find the limits between which the values of the function

$$\frac{4x - 3}{x^2 + 7}$$

must lie for all real values of  $x$ .

6

(ii) Express the function

$$E \equiv \frac{x - 2}{(x + 1)(x^2 + 2)}$$

in partial fractions.

6

Prove that, if  $x$  is so large that  $\left(\frac{1}{x}\right)^6$  can be neglected, then  $E$  is given by  $\frac{1}{x^5} (x^3 - 3x^2 + x + 3)$ .

8

7. Integrate the following functions with respect to  $x$ :

(i)  $\tan x \sec^4 x$ ;

(ii)  $\frac{8x - 1}{2x^2 + x - 1}$ .

4, 6

Evaluate

$$\int_0^{\frac{\pi}{2}} x^2 \cos x \, dx.$$

6

By means of the substitution  $x = \pi - y$ , or otherwise, prove that

$$\int_0^{\pi} x \sin^2 x \, dx = \frac{1}{4}\pi^2.$$

4

8. State, in terms of the first derivative, without proof, the sufficient conditions for the point with abscissa  $a$  on the graph of  $y = f(x)$  to be a minimum turning point.

2

Find the turning points on the graph of

$$y = \frac{3 - 4x}{1 + x^2},$$

and determine their nature.

8

Investigate the manner in which the curve approaches its asymptote and sketch the curve.

5

Find the equation of the tangent at the point on the curve where  $x = 1$ , and determine the abscissa of the point where this tangent meets the curve again.

5

Marks

9. Assuming Demoivre's theorem for a positive integral index, prove the theorem for a negative integral index.

4

Find the modulus and amplitude of

$$\left( \frac{1 - \cos \theta - i \sin \theta}{1 + \cos \theta - i \sin \theta} \right)^4.$$

8

Prove that

$${}^nC_1 \sin \theta + {}^nC_2 \sin 2\theta + \dots + {}^nC_n \sin n\theta = 2^n \cos^{\frac{n}{2}} \theta \sin \frac{1}{2} n\theta.$$

8

### DYNAMICS

#### ADDITIONAL MATHEMATICAL SUBJECT

Tuesday, 22nd March—1.30 P.M. to 3.30 P.M.

*Before attempting to answer any question, candidates should read the whole of it very carefully, since time is often lost through misapprehension as to what is really required.*

*Candidates should, where necessary, illustrate their solutions by suitable diagrams. Square-ruled paper and four-place mathematical tables are provided.*

*In the answers to arithmetical examples units must be stated.*

$$g = 32 \text{ ft./sec.}^2$$

*The value attached to each question, or to each part of a question, is shown in the margin.*

Marks will be deducted for careless or badly arranged work.

#### SECTION I

*All the questions in this Section should be attempted.*

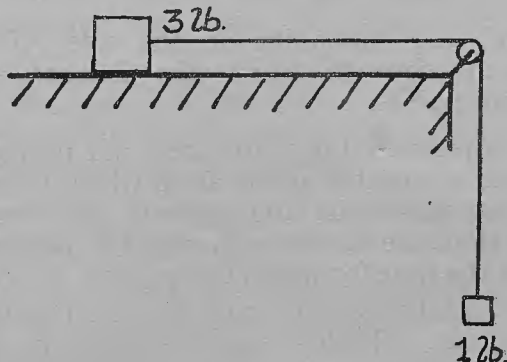
Marks

1. State Newton's Second Law of Motion, and deduce the relation  $P = mf$ .

3

Masses of 3 lb. and 1 lb. are connected by a light inextensible string.

The 3 lb. mass lies on a rough horizontal table, the coefficient of friction between the mass and the table being  $\mu$ ; the string passes over a smooth pulley at the edge of the table, and the 1 lb. mass hangs freely.



Show that, if the masses are in motion, the acceleration of the 3 lb. mass towards the pulley is  $\frac{1 - 3\mu}{4}g$ , and find the tension in the string.

Initially the 3 lb. mass is held at rest at a distance of 20 feet from the pulley and is then released. For the first 10 feet of the ensuing motion  $\mu$  is  $\frac{1}{5}$  and for the rest of the motion  $\mu$  is  $\frac{1}{2}$ . Find the distance of the 3 lb. mass from the pulley when motion ceases.

2. Define *horse-power*.

A cyclist maintains a steady speed of 12 miles per hour on a level road by working at a constant rate of  $\frac{1}{10}$  H.P. Find in lb. wt. the resistance to his motion.

The combined mass of the machine and rider is 150 lb. Assuming that his rate of working and the resistance to his motion remain constant, find, in miles per hour, the speed which he will maintain on an incline of 1 in 80 (measured along the slope)

(a) when he is travelling *up* the incline ;

(b) when he is travelling *down* the incline.

3. Forces act along certain sides of a regular hexagon ABCDEF as follows : a force of 1 lb. wt. along AB, a force of 2 lb. wt. along BC, a force of 3 lb. wt. along DE, and a force of 4 lb. wt. along EF, the forces acting in the directions indicated by the order of naming the letters. By resolving parallel to AB and perpendicular to AB, find the magnitude and direction of the resultant of the forces.

Find also the point on the side AB (or the side produced) through which the line of action of the resultant passes.

4. A particle starts from rest and moves in a straight line with a variable acceleration which is proportional to the time for which the particle has been in motion. Prove that the distance travelled is proportional to the cube of the time for which the particle has been in motion.

Two particles start from rest simultaneously from a given point. The first particle moves in a straight line with a constant acceleration of 3 feet per second per

Marks

second; the second moves in a straight line with an acceleration which is proportional to the time for which it has been in motion, and has an acceleration of 3 feet per second per second at the end of 4 seconds. After what time will the particles have covered equal distances, and what are then their velocities?

9

## SECTION II

*Only TWO questions should be answered from this Section.*

5. (i) In a uniform square lamina ABCD whose diagonals intersect at O, a triangular hole is cut, the vertices of the triangle being at the mid-points of OA, OB, and OC. Find, relative to O, the position of the centre of gravity of the remainder of the lamina.

6

(ii) A uniform lamina is enclosed by the parabola  $y^2 = ax$  and the line  $x = a$ , where  $a$  is positive. Show that the coordinates of the centre of gravity of the lamina are  $(\frac{3}{5}a, 0)$ .

8

The lamina is suspended by a string attached at the point  $(\frac{5}{8}a, 0)$  and is kept in a horizontal plane by placing equal masses  $m$  at the origin, at the point  $(a, a)$ , and at the point  $(a, -a)$  respectively. Find, in terms of  $m$ , the mass of the lamina.

6

6. A particle is placed in a pan attached to the lower end of a vertical spring, and together they extend the spring by 6 inches. If the pan is pulled down a further 4 inches and then released, prove that the resulting motion is simple harmonic, and state the period and amplitude.

10

If the particle is of mass  $\frac{1}{2}$  lb., find, in lb. wt., the reactions between the particle and the pan at the highest point and at the lowest point of the motion.

4

Find also, relative to the lowest point, the height of the pan when the reaction between the particle and the pan is  $\frac{1}{3}$  lb. wt., and show that the reaction will first have this value  $\frac{\pi}{12}$  seconds after the start of the motion.

6

Marks

7. A rigid body is acted on by more than three co-planar forces and it is known that the sum of the components of the forces in two separate directions is zero. What further condition is both necessary and sufficient to ensure equilibrium? If this condition is not satisfied, what is the nature of the resultant of the forces?

3

(i) A uniform hemisphere is in limiting equilibrium with one point of its curved surface in contact with a horizontal floor and another point of its curved surface in contact with a vertical wall, so that the centre of gravity of the hemisphere is in the plane through the centre of the hemisphere and the points of contact with the floor and the wall. If its plane surface is at an angle  $\theta$  to the horizontal, and the coefficient of friction between the hemisphere and the horizontal and vertical surfaces is  $\mu$ , show that

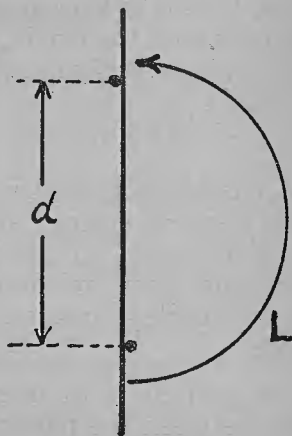
$$\sin \theta = \frac{8\mu(1 + \mu)}{3(1 + \mu^2)}.$$

(You may assume that the C.G. of a uniform hemisphere of radius  $r$  is at a distance  $\frac{3r}{8}$  from the centre of the hemisphere.)

10

(ii) Two pegs are placed, one above the other, at a distance  $d$  apart, and a thin rod of weight  $W$  is in limiting equilibrium when held vertically in contact with the pegs by the action of a couple of moment  $L$ , as shown in the accompanying diagram. Prove that, if  $\mu$  is the coefficient of friction between the rod and each peg,

$$\mu = \frac{Wd}{2L}.$$



7

8. Prove that the horizontal range of a particle projected with velocity  $u$  at an angle  $\theta$  to the horizontal is  $\frac{u^2 \sin 2\theta}{g}$ .

5

(i) If a particle is projected with a velocity of 1,600 feet per second, find the possible angles of projection for a horizontal range of 5 miles.

5

Marks

(ii) From a point on a horizontal surface a smooth sphere is projected at an angle to the horizontal and after time  $T$  strikes the surface at a distance  $R$  from the point of projection; the sphere rebounds from the surface, the coefficient of restitution being  $e$ . Prove that it will strike the surface again after a further time  $eT$ .

4

If it continues to rebound, show that, at the  $n$ th impact, it is at a distance  $\frac{R(1 - e^n)}{1 - e}$  from the original point of projection.

6

## GEOMETRY

## ADDITIONAL MATHEMATICAL SUBJECT

Friday, 18th March—1.0 P.M. to 3.0 P.M.

*Before attempting to answer any question, candidates should read the whole of it very carefully, since time is often lost through misapprehension as to what is really required.*

Not more than **FIVE** questions should be attempted, of which **TWO** should be chosen from Section I, **TWO** from Section II, and a **FIFTH** from **EITHER** Section.

*Where geometrical references are necessary in written proofs, care should be taken to ensure that such references are clear and intelligible. Text-book reference numbers should NOT be used.*

*The value attached to each question, or to each part of a question, is shown in the margin.*

Marks will be deducted for careless or badly arranged work.

## SECTION I

Marks

1. (i) Find the value of  $c$  such that the equation

$$6x^2 + 5xy - 6y^2 + 10x + 2y + c = 0$$

represents a pair of straight lines.

5

Find the equation of the locus of a point which moves so that the sum of the squares of its distances from these lines is equal to the square of its distance from the origin.

5

(ii) Prove that, if the equation

$$ax^2 + 2hxy + by^2 + 2gx + 2fy + c = 0$$

represents a pair of intersecting straight lines, the equation of the perpendiculars to them from the origin is

$$bx^2 - 2hxy + ay^2 = 0.$$

5

What is the relationship between these two pairs of straight lines and the circle whose equation is

$$(a + b)(x^2 + y^2) + 2gx + 2fy + c = 0?$$

5

2. Prove that the equation of the polar of the point  $P(x_1, y_1)$  with respect to the circle  $x^2 + y^2 = r^2$  is  $xx_1 + yy_1 = r^2$ , and state the equation of the polar of  $P$  with respect to the circle  $x^2 + y^2 + 2gx + 2fy + c = 0$ . 7

By a suitable choice of origin and axes, the equations of two given intersecting circles are expressed in the form

$$x^2 + y^2 + 2g_1x - c^2 = 0,$$

$$x^2 + y^2 + 2g_2x - c^2 = 0.$$

Indicate, relative to the circles, which lines have been chosen as coordinate axes and state the geometrical significance of the constants  $g_1, g_2$ , and  $c$ . 7

Hence, or otherwise, prove that, if  $A$  and  $B$  are the centres of two intersecting circles, the polar of  $A$  with respect to the circle with centre  $B$  and the polar of  $B$  with respect to the circle with centre  $A$  are parallel to, and are equidistant from, the common chord of the circles. 6

3. Establish the equation of the chord joining the points  $P(at_1^2, 2at_1)$  and  $Q(at_2^2, 2at_2)$  on the parabola  $y^2 = 4ax$  and deduce the equation of the tangent at  $P$ . 5

The tangents from the point  $T(-a, 2a)$  to the parabola touch it at  $A$  and  $B$ . Show that  $AB$  is inclined at  $45^\circ$  to the axis of the parabola.

Find the ratio of the length of  $AB$  to the length of the latus rectum. 15

4. (i) State the focus-directrix definition of an ellipse.

$S$  is a fixed point within a given angle  $BAC$ . With  $S$  as focus and  $AB$  as directrix an ellipse of eccentricity  $e$  is drawn; with  $S$  as focus and  $AC$  as directrix a second ellipse with the same eccentricity  $e$  is drawn to cut the first one at  $P$  and  $Q$ . Prove that  $P$  and  $Q$  lie on the bisector of the angle  $BAC$ . 8

(ii)  $CP$  and  $CQ$  are conjugate semi-diameters of a given ellipse and the tangents at  $P$  and  $Q$  intersect at  $R$ . Prove that  $R$  lies on a fixed ellipse and that the tangent at  $R$  to this ellipse is parallel to  $PQ$ . 12

5. Show that the gradient of the chord joining the points  $\left(ct_1, \frac{c}{t_1}\right), \left(ct_2, \frac{c}{t_2}\right)$  on the rectangular hyperbola  $xy = c^2$  is  $-\frac{1}{t_1t_2}$ . 3

Marks

On the hyperbola with freedom equations  $x = ct$ ,  $y = \frac{c}{t}$ , L and M are the points given by  $t = 1$  and  $t = -4$ .

Find the values of  $t$  at the points P and Q where the circle on LM as diameter cuts the hyperbola again.

10

Show that PQ is a diameter of the hyperbola and that LM and PQ are equally inclined to the transverse axis.

7

## SECTION II

6. Prove that, if D, E, and F are points on the sides BC, CA, and AB respectively of a triangle ABC such that AD, BE, and CF are concurrent, then

$$\frac{BD}{DC} \cdot \frac{CE}{EA} \cdot \frac{AF}{FB} = +1.$$

State the converse of this theorem.

7

P is a point within the base BC of a triangle ABC and AP is produced to Q. BQ is produced to cut AC produced at R; CQ is produced to cut AB produced at S. SP produced cuts AC at E, and any line through R cuts BC at D and AB at F. Prove that AD, BE, and CF are concurrent.

13

7. Prove that, if a line is drawn parallel to one ray of a harmonic pencil, the conjugate ray bisects the intercept made on the line by the remaining pair of conjugate rays of the pencil.

6

If I is the centre of the inscribed circle of a triangle ABC and  $I_1$  is the centre of the escribed circle on the opposite side of BC from A, prove that B(AC,  $II_1$ ) is a harmonic pencil.

4

If the inscribed and escribed circles touch BC at X and  $X_1$  respectively, and AX and  $X_1I_1$  are produced to meet at D, prove that D lies on the escribed circle.

10

8. Prove that, if two circles cut orthogonally, any diameter of the one circle is cut harmonically by the other circle. State and prove a valid converse of this theorem.

7

Given a circle and two points P and Q lying outside it, state and prove a construction for a circle passing through P and Q and cutting the given circle orthogonally.

5

Marks

B is a point on the polar of A with respect to a given circle, both A and B lying outside the circle, and with A and B as centres circles are drawn to cut the given circle orthogonally. Prove that these circles cut each other orthogonally.

8

9. In the tetrahedron ABCD, a plane cuts BC at K, AC at L, AD at M, and BD at N. By means of the theorem of Menelaus, prove that

$$\frac{BK}{KC} \cdot \frac{CL}{LA} \cdot \frac{AM}{MD} \cdot \frac{DN}{NB} = 1.$$

9

If L and N are the mid-points of AC and BD, and P is the point on AB such that  $BP : PA = BK : KC$ , and if the plane PKM cuts CD at Q, prove that PKQM is a parallelogram.

11

## LATIN

### LOWER GRADE

Monday, 21st March—9.15 A.M. to 11.45 A.M.

*The value attached to each question, or to each part of a question, is shown in brackets in the margin.*

**N.B.**—Begin the answer (or fair copy of an answer) to each question on a fresh page.

Marks will be deducted for bad spelling and bad punctuation, and for writing that is difficult to read.

1. Translate into English :—

Either (a) or (b)

(a) The inhabitants of Octodurus attempt to capture Galba's winter-quarters, but are driven off with heavy losses.

Caesar igitur, magnis in Gallia rebus gestis, cum in Italiam proficisci statuisset, Galbam cum legione duodecima ad Veragros Sedunosque misit. qui cum hiemandi causa in vico Veragrorum, cui nomen erat Octodurus, consedisset oppidique partem incolis concessisset, quodam die eos discessisse per noctem ac proximo insedissee colli videt. illi paucitatem Romanorum despicientes praedam sibi nullo negotio cessuram<sup>(1)</sup> arbitrabantur. itaque, Galba periculis circumsaepo ac dubitante quid faceret, repente castra circumdant, raros per vallum propugnatores saxis telisque oppugnant. at cum iam hostes in castra

## Marks

invaderent, tribuni cuiusdam consilio cuncti Romani portis eruperunt incautosque subito adgressi hostes primum perturbaverunt, deinde in fugam versos miserabili strage<sup>(2)</sup> fuderunt. nam amplius triginta milia barbarorum tunc caesa esse dicuntur.

(1) *cedere* = to fall into the hands of.

(2) *strages*, -is (f) = carnage, slaughter.

(26)

- (b) **Dido's sister Anna, fleeing from her brother Pygmalion, attempts in vain to find refuge in Malta at the court of king Battus.**

Fertilis est Melite, sterili vicina Cosyrae,  
 insula, quam Libyci verberat unda freti.  
 hanc petit, hospitio regis confisa vetusto :  
 hospes, opum dives, rex ibi Battus erat.  
 qui postquam didicit casus utriusque sororis,  
 "haec," inquit, "tellus quantulacumque<sup>(1)</sup> tua est."  
 dixerat : hospitii servasset ad ultima munus,<sup>(2)</sup>  
 sed timuit magnas Pygmalionis opes.  
 frater adest, belloque petit. rex arma perosus<sup>(3)</sup>  
 "nos sumus imbelles, tu tuge sospes,<sup>(4)</sup>" ait.  
 iussa fugit, ventoque ratem committit et undis ;  
 asperior quovis<sup>(5)</sup> aequore frater erat.

(1) *quantuluscumque* = however small.

(2) *hospitii servasset munus* = would have fulfilled the duty of a host.

(3) *perosus* = detesting.

(4) *sospes* = unharmed.

(5) *quivis* = any whatever.

(26)

2. Translate into English :—

**Verres seizes a statue from the shrine of Ceres at Catina and tries in vain to put the blame upon an innocent slave.**

In sacrario Cereris apud Catinenses signum fuit antiquum, quod viri ne esse quidem ibi sciebant : viris enim in id sacrarium ire non licet : sacra per mulieres ac virgines fieri solent. hoc signum noctu clam Verres servi ex illo loco sustulerunt. postridie cum sacerdotes Cereris rem ad magistratus suos detulissent, scelus illud omnibus acerbum<sup>(1)</sup> atque indignum videbatur. tum Verres, ut ab se suspicio demoveretur, dat hospiti suo cuidam negotium<sup>(2)</sup> ut aliquem reperiret quem illud fecisse insimularet,<sup>(3)</sup> ne ipse esset in crimine. servi cuiusdam nomen defertur : is accusatur, ficti testes in eum dantur. ex sacerdotibus

quaeritur secreto in curia quid esse factum arbitrarentur, quo modo signum esset ablatum. respondent illae praetoris servos in eo loco esse visos. res, quae erat iam antea non obscura, sacerdotum testimonio clara esse coepit. itaque servus ille innocens omnibus sententiis absolvitur.

(1) acerbum = grievous.

(2) dare negotium with dative = to entrust a task to.

(3) insimulare = to accuse.

(36)

3. Translate into Latin :—

(1) If the plan had pleased the citizens, we should have defeated the enemy. (3)

(2) Were you not afraid to entrust the gold to that slave ? (3)

(3) They cannot tell us how many of the young men have escaped. (3)

(4) My friend said that he would never use this country house again. (3)

(5) Since the children prefer to stay at home, I shall go to the games alone. (4)

(6) That the enemy might not be alarmed, he told his men not to advance at once. (4)

4. (a) Give the first person singular of the perfect indicative active of :—  
traho, claudio, reperio, tango, ago, adsum. (3)

(b) Give the ablative singular of :—celerior, vetus, cornu, ius, bos, respublica. (3)

(c) Give one English word derived from each of the following :—  
senex, durus, rus, frater. (2)

5. (a) In two sentences for each, tell what you know about Pompey and Cincinnatus. (4)

(b) Give the name of the god associated with the beginning of the year.

Give the name of the emperor who had a wall built between the Tyne and the Solway.

Give the name of one work by Virgil other than the Aeneid.

Give the name of the place where a Roman army was trapped by the Samnites.

Give the title of the magistrate who revised the list of citizens.

Put the following events in chronological order, placing the earliest first :—the death of Tiberius Gracchus, the expulsion of Tarquinius Superbus, the battle of Pharsalus. (3)

(c) In about fifty or sixty words tell what you know about Roman schools or about the interior of a Roman house. (3)

## LATIN

## HIGHER GRADE—(FIRST PAPER)

Monday, 21st March—9.15 A.M. to 11.45 A.M.

*The value attached to each question, or to each part of a question, is shown in brackets in the margin.*

**N.B.**—Begin the answer (or fair copy of an answer) to each question on a fresh page.

**Marks will be deducted for bad spelling and bad punctuation, and for writing that is difficult to read.**

Translate into English :—

*Marks*

1. Cicero writes of Caesar's terms for peace and considers what may happen if war should come.

Quo quidem in casu simus vides. in eum locum res deducta est ut, nisi qui deus subvenerit, salvi esse nequeamus. afferuntur condiciones a Caesare, ut Pompeius eat in Hispaniam, dilectus, qui sunt habiti, dimittantur: ad consulatus petitionem se venturum, neque se iam velle absente se rationem haberi suam.<sup>(1)</sup> accepimus condiciones, sed ita ut removeat praesidia ex iis locis quae occupavit, ut sine metu de his ipsis condicionibus Romae senatus haberi possit. id ille si fecerit, spes est pacis, non honestae—leges enim imponuntur—sed quidvis est melius quam sic esse ut sumus. sin autem ille suis condicionibus stare noluerit, bellum paratum est, eius modi tamen quod sustinere ille non possit, dummodo eum intercludamus ne ad urbem possit accedere. maximam autem plagam<sup>(2)</sup> accepit, quod is qui summam auctoritatem in illius exercitu habebat, T. Labienus, socius sceleris esse noluit; reliquit illum et est nobiscum, multique idem facturi esse dicuntur.

<sup>(1)</sup> rationem habere = to take account of (i.e. as a candidate).

<sup>(2)</sup> plaga (f.) = a blow.

(45)

2. The nymph Arethusa tells how, when pursued by the river-god Alpheus, she was saved by the goddess Diana (Dictynna).

Sed tolerare diu cursus ego, viribus impar,  
non poteram: longi patiens erat ille laboris.  
per tamen et campos, et opertos arbore montes,  
saxa quoque, et rupes, et qua via nulla, cucurri.  
sol erat a tergo: vidi praecedere longam  
ante pedes umbram, nisi si timor illa videbat.  
sed certe sonituque pedum terrebar, et ingens  
crinales vittas afflabat anhelitus oris.<sup>(1)</sup>  
fessa labore fugae, "fer opem, deprendimur," inquam,  
"armigerae, Dictynna, tuae, cui saepe dedisti  
ferre tuos arcus, inclusaque tela pharetra."  
mota dea est, spissisque<sup>(2)</sup> ferens e nubibus unam

me super iniecit. lustrat<sup>(3)</sup> caligine tectam  
 annis : at ignarus circum cava nubila quaerit,  
 bisque locum, quo me dea texerat, inscius ambit,  
 et bis, "io Arethusa, io Arethusa," vocavit.

(1) anhelitus oris = breathing, panting.

(2) spissus = dense.

(3) lustrat = goes round.

(37)

Scan the line beginning "saxa quoque," and the next two lines, marking the principal caesura in each.

(3)

### 3. The Gauls drive a hard bargain. The Etruscans do not like the prospect of having them as neighbours.

Eodem anno ab Etruscis adversus indutias paratum bellum ; sed Gallorum ingens exercitus fines ingressus eos paulisper a proposito avertit. pecunia deinde freti, socios ex hostibus facere Gallos conantur ut eo adiuncto exercitu cum Romanis bellarent. de societate haud abnuunt barbari : de mercede agitur. qua pacta<sup>(1)</sup> acceptaque, cum parata cetera ad bellum essent sequique Etruscus iuberet, negant mercedem se belli Romanis inferendi pactos<sup>(2)</sup> : quidquid acceperint accepisse, ne agrum Etruscum vastarent armisque lacesserent cultores : militaturos tamen se, si Etrusci velint, sed nulla alia mercede quam ut in partem agri accipiantur tandemque aliqua sede certa consistent. multa de ea re concilia populorum Etruriae habita nec perfici quicquam potuit, quia accolae sibi quisque adiungere tam efferatae<sup>(3)</sup> gentis homines timebat. ita dimissi Galli pecuniam ingentem sine labore ac periculo partam in castra sua rettulerunt.

(1) pacta (passive) = had been agreed upon.

(2) pactos (deponent) = had agreed upon.

(3) efferatus = savage.

(35)

## LATIN

### HIGHER GRADE—(SECOND PAPER)

Monday, 21st March—1.0 P.M. to 3.0 P.M.

*The value attached to each question, or to each part of a question, is shown in brackets in the margin.*

**N.B.**—Begin the answer (or fair copy of an answer) to each question on a fresh page.

Marks will be deducted for writing that is difficult to read.

## 1. Translate into Latin :—

Marks

Thus Hannibal crossed to the island of Cercina. In the harbour there he found some Phœnician<sup>(1)</sup> ships, and he told those who came from the ships to greet him that he had been sent as an envoy to Tyre<sup>(2)</sup>. Fearing, however, that one of the ships might set out for Thapsus unexpectedly and report his arrival at Cercina, he devised the following plan. Ordering a feast to be prepared, he invited the masters of all the ships in harbour, and, since it was midsummer, he asked them for sails with which to make an awning<sup>(3)</sup> for those who were dining on the shore. Suspecting nothing, the captains gladly gave him all that he asked, and the feast was prolonged until midnight. While everybody else, heavy with wine and food, was asleep, Hannibal escaped from the island. Next morning the captains returned to their ships too late to do anything: for, even if they had been able to set sail without delay, they would not have overtaken the Carthaginian.

(1) say " of the Phœnicians " (Phœnicum).

(2) Tyre = Tyrus, -i (f.).

(3) awning = velarium (n.)

(50)

## 2. Translate into Latin :—

(1) That the farmers might give him corn more willingly, he paid the money at once. (3)

(2) Unless the merchants decide to travel alone, we shall ask them to come with us. (4)

(3) They promised that, as soon as the ships were repaired, they would take vengeance on the robbers. (4)

(4) We shall not be so foolish as to inform him how much gold we have obtained. (4)

(5) Although he seemed much wiser than the other magistrates, the Romans could not help hating him. (4)

(6) The more desirous you were of making a treaty, the less were they willing to trust you. (4)

3. (a) Give the second person singular of the imperfect subjunctive of *obliscor*, *prosum*, *fio*; the present imperative, second person singular, of *proficiscor*; and the present imperative active, second person singular, of *duco* and *aufero*. (3)

(b) Give the genitive singular of :—*aes*, *seges*, *Aeneas*, *uterque*. (2)

(c) Give the Latin for :—on 7th October, the foot of the mountain, every day, not even the enemy. (2)

## GREEK

## LOWER GRADE

Thursday, 17th March—10 A.M. to 12.30 P.M.

*The value attached to each question, or to each part of a question, is shown in brackets in the margin.*

**N.B.**—Begin the answer (or fair copy of an answer) to each question on a fresh page.

Marks will be deducted for bad spelling and bad punctuation, and for writing that is difficult to read.

1. Translate into English :—

Marks

(a) Theramenes persuades the Athenians to accept the Lacedaemonians' terms for ending the Peloponnesian War.

Λακεδαιμόνιοι δὲ οὐκ ἔφασαν πόλιν Ἑλληνίδα ἀνδραποδιεῖν μέγα ἀγαθὸν εἰργασμένην τοὺς Ἕλληνας· ἤθελον δὲ εἰρήνην ποιεῖσθαι ἐφ' ᾧ τὰ τε μακρὰ τείχη καὶ τὸν Πειραιᾶ καθελόντας Λακεδαιμονίοις ἔπεσθαι ὅποι ἂν ἡγῶνται. Θηραμένης δὲ καὶ οἱ σὺν αὐτῷ πρέσβεις ἐπανάφερον ταῦτα εἰς Ἀθήνας. εἰσιοῦσι δὲ αὐτοῖς ἀπήντησαν πολλοὶ τῶν πολιτῶν, φοβούμενοι μὴ ἄπρακτοι ἦκοιεν· οὐ γὰρ ἔτι ἐξῆν μέλλειν διὰ τὸ πλῆθος τῶν ἀπολλυμένων τῷ λιμῷ. τῇ δὲ ὑστεραία ἀπήγγελλον οἱ πρέσβεις ἐφ' οἷς οἱ Λακεδαιμόνιοι ἐθέλοien ποιεῖσθαι τὴν εἰρήνην· προηγόρει δὲ αὐτῶν<sup>(1)</sup> Θηραμένης, λέγων ὡς χρὴ πείθεσθαι Λακεδαιμονίοις καὶ τὰ τείχη καθαιρεῖν. ἀντειπόντων δὲ τινων αὐτῷ, πολὺ δὲ πλειόνων συνεπαινεσάντων, ἔδοξε δέχεσθαι τὴν εἰρήνην. μετὰ δὲ ταῦτα Λύσανδρός τε κατέπλει εἰς τὸν Πειραιᾶ καὶ οἱ φυγάδες κατῆλθον καὶ τὰ τείχη κατέσκαπτον<sup>(2)</sup> πολλῇ προθυμίᾳ, νομίζοντες ἐκείνην τὴν ἡμέραν τῇ Ἑλλάδι ἀρχὴν εἶναι τῆς ἐλευθερίας.

<sup>(1)</sup> προηγόρει αὐτῶν = acted as their spokesman.

<sup>(2)</sup> κατασκάπτειν = to raze to the ground.

(34)

(b) Themistocles, in danger of being tried before a court of Persian nobles, saves himself by learning the Persian language.

Μανδάνη Δαρείου μὲν ἦν θυγάτηρ, ἀδελφὴ δὲ τοῦ Ξέρξου. αὕτη, τῶν υἱῶν ἐστερημένη<sup>(1)</sup> καθ' ὃν χρόνον Θेमιστοκλῆς ἐκράτησε περὶ Σαλαμῖνα τὸ ναυτικὸν τῶν Περσῶν, χαλεπῶς

ἔφερε τὸν θάνατον τῶν τέκνων. καὶ πυθομένη ὅτι πάρεστιν ὁ Θεμιστοκλῆς ἦλθεν πρὸς τὸν ἀδελφὸν καὶ ᾗτησεν αὐτὸν τιμωρεῖσθαι τὸν Θεμιστοκλέα. ὥς δ' οὐκ ᾗθελεν ὁ βασιλεὺς, περιήει ἡ γυνὴ τοὺς Πέρσας παροξύνουσα<sup>(2)</sup> πρὸς τὴν τοῦ Θεμιστοκλέους τιμωρίαν. πολλῶν δὲ συνδραμόντων ἐπὶ τὰ βασίλεια καὶ ἐξαιτούντων ἐπὶ τιμωρίαν τὸν Θεμιστοκλέα, ὁ μὲν βασιλεὺς ἀπεκρίνατο ἐκ τῶν ἀρίστων Περσῶν δικαστήριον<sup>(3)</sup> καταστήσειν, ὅ τι τὴν δίκην διακρίνει<sup>(4)</sup>. πάντων δὲ τὴν γνώμην ταύτην ἐπαινεσάντων καὶ δοθέντος ἱκανοῦ χρόνου εἰς τὴν παρασκευὴν τῆς κρίσεως, ὁ Θεμιστοκλῆς μαθὼν τὴν Περσίδα γλῶσσαν καὶ ταύτη ἐν τῇ ἀπολογίᾳ χρησάμενος ἀπελύθη.

(1) ἐστερημένη = bereft of.

(2) παροξύνουσα = stirring up.

(3) δικαστήριον = a court.

(4) διακρίνειν = to judge, to decide.

(27)

2. Translate into Greek :—

(1) May those young men never despise their fathers ! (3)

(2) You will not be so foolish as to resist so great an army. (3)

(3) If we had advanced more quickly, we should have escaped. (3)

(4) In order to reach the city within five days, he started at dawn. (3)

(5) Since many citizens were in want of food, the magistrates promised to make peace at once. (4)

(6) We are all afraid that the ships which have left the harbour will be destroyed by the storm. (4)

3. (a) Give the nominative singular masculine of the aorist participle passive of διδάσκω, τίθημι, ἐρωτῶ and the future infinitive active of ἀγγέλλω, ἵστημι, φέρω. (3)

(b) Give the genitive singular of νεανίας, πλοῦς, θάλαττα, γένος, θυγάτηρ, ὄστν. (3)

(c) Give the Greek words from which the following are derived :—despotic, strategy, dynamite, physical. (2)

4. (a) Tell in two sentences for each what you know about the Delphic Oracle and the battle of Marathon. (4)

- (b) Give the name of one of the rivers of the underworld.  
 Give the name of a Greek lyric poet or poetess.  
 Give the name of the island in which the Minotaur lived.  
 Give the name of the Persian prince in whose army Xenophon served.  
 Give the name of the naval battle in which Themistocles defeated the Persians.  
 Give the name of one of the leaders of the Athenian expedition to Sicily (415 B.C.).  
 Give the name of the wife of Zeus.  
 Give the name of the part of the theatre in which the Greek tragic chorus danced. (4)
- (c) In about fifty or sixty words tell what you know about Solon or about Pausanias. (3)

## GREEK

## HIGHER GRADE—(FIRST PAPER)

Thursday, 17th March—10 A.M. to 12.30 P.M.

*The value attached to each question, or to each part of a question, is shown in brackets in the margin.*

**N.B.**—Begin the answer (or fair copy of an answer) to each question on a fresh page.

Marks will be deducted for bad spelling and bad punctuation, and for writing that is difficult to read.

Translate into English :—

1. Brasidas, the Spartan general, defeats the Athenians at Amphipolis, but falls in the hour of victory.

Κὰν τοῦτω Βρασίδης, ὡς ὀρᾷ τὸν καιρὸν καὶ τὸ στράτευμα τῶν Ἀθηναίων κινούμενον, λέγει τοῖς μεθ' ἑαυτοῦ καὶ τοῖς ἄλλοις ὅτι “οἱ ἄνδρες ἡμᾶς οὐ μένουσιν. δῆλοι δέ εἰσι τῶν τε δοράτων τῇ κινήσει καὶ τῶν κεφαλῶν· οἷς γὰρ ἂν τοῦτο γίγνηται, οὐκ εἰώθασι μένειν τοὺς ἐπιόντας. ἀλλὰ τὰς τε πύλας τις ἀνοιγέτω ἐμοί, καὶ ἐπεξίωμεν ὡς τάχιστα θαρσοῦντες.” καὶ ὁ μὲν κατὰ τὰς ἐπὶ τὸ σταύρωμα πύλας<sup>(1)</sup> καὶ τὰς πρῶτας τοῦ μακροῦ τείχους τότε ὄντος ἐξελθὼν ἔθει δρόμῳ καὶ προσβαλὼν τοῖς Ἀθηναίοις ἐκπεπληγμένοις τε ἅμα τῇ σφετέρᾳ ἀταξίᾳ καὶ τὴν τόλμαν αὐτοῦ πεφοβημένοις

κατὰ μέσον τὸ στράτευμα τρέπει. καὶ ὁ Βρασίδας τιπρώσεται, καὶ πεσόντα αὐτὸν οἱ μὲν Ἀθηναῖοι οὐκ αἰσθάνονται, οἱ δὲ πλησίον ἄραντες ἐκ τῆς μάχης καὶ διασώσαντες ἐς τὴν πόλιν ἔτι ἔμπνουν ἐσεκόμεσαν· καὶ ᾗσθητο μὲν ὅτι νικῶσιν οἱ μεθ' αὐτοῦ, οὐ πολὺ δὲ διαλιπὼν ἐτελεύτησεν.

(1) κατὰ τὰς . . . . πύλας = by the gates leading to the stockade. (40)

2. The speaker recalls how, through the machinations of Theramenes, the democratic constitution of Athens was abolished and the rule of the Thirty Oligarchs established.

Μετὰ δὲ ταῦτα, ὧ ἄνδρες, οἱ ἀμφὶ τὸν Θηραμένην περὶ τῆς πολιτείας τὴν ἐκκλησίαν ἐποιοῦν, ἵνα μήτε ῥήτωρ αὐτοῖς μηδεὶς ἐναντιοῖτο μηδὲ ἀπειλοῖ, ὑμεῖς τε μὴ τὰ τῇ πόλει συμφέροντα ἔλοισθε, ἀλλὰ τὰ κείνοις δοκοῦντα ψηφίσαισθε. ἀναστὰς δὲ Θηραμένης ἐκέλευσεν ὑμᾶς τριάκοντα ἀνδράσιν ἐπιτρέψαι τὴν πόλιν. ὑμεῖς δ' ἐθορυβεῖτε ὥς οὐ ποιήσοντες ταῦτα· ἐγὶγνώσκετε γὰρ ὅτι περὶ δουλείας καὶ ἐλευθερίας ἐν ἐκείνῃ τῇ ἡμέρᾳ ἠγκλησιάζετε. Θηραμένης δέ, ὧ ἄνδρες δικασταί, (καὶ τούτων ὑμᾶς αὐτοὺς μάρτυρας παρέξομαι), εἶπεν ὅτι οὐδὲν αὐτῷ μέλοι τοῦ ὑμετέρου θορύβου, ἐπειδὴ πολλοὺς μὲν Ἀθηναίων εἰδείη τὰ ὅμοια πράττοντας αὐτῷ, δοκοῦντα δὲ Λυσάνδρῳ καὶ Λακεδαιμονίοις λέγοι. μετ' ἐκείνων δὲ Λύσανδρος ἀναστὰς ἄλλα τε πολλὰ εἶπε καὶ ὅτι οὐ περὶ πολιτείας ὑμῖν ἔσται ἀλλὰ περὶ σωτηρίας, εἰ μὴ ποιήσεθ' ἃ Θηραμένης κελεύει. τῶν δ' ἐν τῇ ἐκκλησίᾳ ὅσοι ἄνδρες ἀγαθοὶ ἦσαν, οἱ μὲν αὐτοῦ μένοντες ἡσυχίαν ἦγον, οἱ δὲ ὥχοντο ἀπιόντες, τοῦτο γοῦν σφίσιν αὐτοῖς συνειδότες, ὅτι οὐδὲν κακὸν τῇ πόλει ἐψηφίσαντο· ὀλίγοι δὲ τινες καὶ πονηροὶ καὶ κακῶς βουλευόμενοι· τὰ προσταχθέντα ἐχειροτόνησαν.

(45)

3. Either (a) or (b).

(a) Briseis mourns over the dead body of Patroclus.

εἶπε δ' ἄρα κλαίουσα γυνὴ εἰκυῖα θεῆσσι·

“Πάτροκλέ μοι δειλῇ πλεῖστον κεχαρισμένε θυμῷ,

ζῶν μὲν σε ἔλειπον ἐγὼ κλισίην ἰούσα,

νῦν δέ σε τεθνηῶτα κιχάνομαι, ὄρχαμε λαῶν,  
 ἄψ' ἀνιούσ'. ὥς μοι δέχεται κακὸν ἐκ κακοῦ<sup>(1)</sup> αἰεί.  
 ἄνδρα μὲν, ᾧ ἔδοσάν με πατὴρ καὶ πότνια μήτηρ,  
 εἶδον πρὸ πτόλιος δεδαίγμενον ὀξείῃ χαλκῷ,  
 τρεῖς τε κασιγνήτους, τοὺς μοι μία γείνατο μήτηρ,  
 κηδείους, οἳ πάντες ὀλέθριον ἦμαρ ἔπεσπον.  
 οὐδὲ μὲν οὐδέ μ' ἔασκες, ὅτ' ἄνδρ' ἐμὸν ὠκύς Ἀχιλλεύς  
 ἔκτεινεν, πέρσεν δὲ πόλιν θείοιο Μύνητος,  
 κλαίειν, ἀλλὰ μ' ἔφασκες Ἀχιλλῆος θείοιο  
 κουριδίην ἄλοχον θήσειν, ἄξειν τ' ἐνὶ νηυσὶν  
 ἐς Φθίην, δαίσειν δὲ γάμον<sup>(2)</sup> μετὰ Μυρμιδόνεσσι.  
 τῷ σ' ἄμοτον<sup>(3)</sup> κλαίω τεθνηῶτα, μείλιχον<sup>(4)</sup> αἰεί."  
 ὧς ἔφατο κλαίουσ', ἐπὶ δὲ στενάχοντο γυναῖκες.

(1) δέχεται κακὸν ἐκ κακοῦ = misfortune follows upon misfortune.

(2) δαινύναι γάμον = to give a marriage feast.

(3) ἄμοτον = without ceasing.

(4) μείλιχος = kind, gentle.

(37)

Scan the line beginning Πάτροκλέ μοι and the next two lines, marking the principal caesura in each.

(3)

(b) Iolaus has fled to Athens with the children of Heracles. In order to save their lives, he asks the king to give him up to their enemy Eurystheus.

Ιο. ποῖ τρεψόμεσθα; τίς γὰρ ἄστεπτος<sup>(1)</sup> θεῶν;  
 ποῖον δὲ γαίης ἔρκος<sup>(2)</sup> οὐκ ἀφίγμεθα;  
 οἴουμέθ', ὦ τέκν', ἐκδοθησόμεσθα δή.  
 κάμου μὲν οὐδέν, εἴ με χρὴ θανεῖν, μέλει,  
 πλὴν εἴ τι τέρψω τοὺς ἐμοὺς ἐχθροὺς θανών.  
 ὑμᾶς δὲ κλαίω καὶ κατοικτείρω, τέκνα,  
 καὶ τὴν γεραϊὰν μητέρ' Ἀλκμήνην πατρός.  
 χρῆν χρῆν ἄρ' ἡμᾶς ἀνδρὸς εἰς ἐχθροῦ χέρας  
 πεσόντας αἰσχροῦς καὶ κακῶς λιπεῖν βίον.  
 ἀλλ' οἷσθ' ὅ μοι σύμπραξον;<sup>(3)</sup> οὐχ ἅπανσα γὰρ  
 πέφευγεν ἐλπίς τῶνδ' ἐμοὶ σωτηρίας.  
 ἔμ' ἔκδος Ἀργείοισιν ἀντὶ τῶνδ', ἀναξ,

Marks

καὶ μήτε κινδύνευε σωθήτω τέ μοι  
τέκν'· οὐ φιλεῖν δεῖ τὴν ἐμὴν ψυχὴν ἵτω.  
μάλιστα δ' Εὐρυσθεύς με βούλοιτ' ἂν λαβὼν  
τὸν Ἡράκλειον σύμμαχον καθυβρίσαι.

(1) ἄστεπτος = not honoured with garlands, i.e. in supplication.

(2) γαίης ἕρκος = a fortified city.

(3) οἶσθ' ὅ μοι σύμπραξον; = do you know how you must help me?

(37)

Scan the line beginning καί μοι μὲν and the next two lines, marking the principal caesura in each.

(3)

## GREEK

## HIGHER GRADE—(SECOND PAPER)

Thursday, 17th March—2.15 P.M. to 4.15 P.M.

*The value attached to each question, or to each part of a question, is shown in brackets in the margin.*

**N.B.—Begin the answer (or fair copy of an answer) to each question on a fresh page.**

**Marks will be deducted for writing that is difficult to read.**

1. Translate into Greek :—

Marks

The soldiers of Antigonos were now so few that it was impossible to attack the barbarians by day. The Greek commander, therefore, decided to march towards the enemy's camp during the night, hoping to approach it unnoticed and to fall upon his unsuspecting opponents at dawn. He did not know, however, that, in order to reach the camp, his soldiers must cross a stream which was much swollen<sup>(1)</sup> by rain-storms. When the Greeks came to this river, those who attempted to cross, alarmed by the depth of the water, cried out and aroused the enemy. The rest of the army, finding its advance checked, was thrown into confusion. If Antigonos had tried to encourage his men and to draw them up for battle, they would at least have been able to retreat in good order<sup>(2)</sup>: but he fled immediately, and, although the other officers exhorted the soldiers to stand their ground, they could not prevent them from following their leader.

(1) to be swollen = πληθύνειν

(2) in good order = συντεταγμένοι

(48)

2. Translate into Greek :—

Marks

- (1) The young men swore that they would never allow the Persians to enslave their country. (4)
- (2) He will be too wise to help these men if they decide to attack the Athenians. (4)
- (3) We have come to find out whether you have forgotten the wisdom of your ancestors. (4)
- (4) Did you not fear that he would hate you for condemning his father ? (4)
- (5) We must not despise their city although it is smaller and weaker than Athens. (4)

3. (a) Give the first person singular of the future indicative active of καίω, παρέχω, ἵημι, and the aorist infinitive passive of βάλλω, ἐκπλήττω, ἄγω. (3)
- (b) Give the nominative singular masculine of the superlative of :— ἡδύς, ῥάδιος, πολύς, σῶφρων. (2)
- (c) Give the Greek for :—those on the right, to the best of one's ability, for two months, at last. (2)

## HEBREW

### LOWER GRADE

Tuesday, 22nd March—9.30 A.M. to 12 NOON

*The value attached to each question is shown in the margin.*

**N.B.**—Begin the answer (or fair copy of an answer) to each question on a fresh page.

Marks will be deducted for bad spelling and bad punctuation, and for writing that is difficult to read.

Answers in Hebrew must be written in the square character.

1. Translate into English any **TWO** of the following passages (a), (b), and (c).

(a)

וַיִּשְׁלַחוּ אֲנָשִׁי גִבְעוֹן אֶל-יְהוֹשֻׁעַ אֶל-הַמַּחֲנֶה הַנִּלְגָּלָה לְאַמֹּר  
 אֶל-תָּרֶךְ יִדְיָה מִעֲבָדָיו עָלָה אֲלֵינוּ מִתְּרָה וְהוֹשִׁיעָה לָנוּ  
 וְעֲזָרְנוּ כִּי נִקְבְּצוּ אֲלֵינוּ כָּל-מַלְכֵי הָאֲמֹרִי יֹשְׁבֵי הָהָר: וַיַּעַל  
 יְהוֹשֻׁעַ מִן-הַנִּלְגָּל הוּא וְכָל-עַם הַמִּלְחָמָה עִמּוֹ וְכָל-נַפְוֵי  
 הַחֵיל: וַיֹּאמֶר יְהוָה אֶל-יְהוֹשֻׁעַ אֶל-תִּירָא מֵהֶם כִּי בְיָדְךָ  
 נִתְּתִים לֹא יַעֲמֵד אִישׁ מֵהֶם בְּפָנֶיךָ: וַיָּבֹא אֲלֵיהֶם יְהוֹשֻׁעַ  
 פְּתָאִם כָּל-חַלְיָה עָלָה מִן-הַנִּלְגָּל: וַיַּהֲרֹם יְהוָה לִפְנֵי יִשְׂרָאֵל  
 וַיִּבֶם מִכָּה גְדוֹלָה בְּגִבְעוֹן וַיִּרְדָּפֶם הָרָק מֵעַלָּה בֵּית-חֹרֹן  
 וַיִּבֶם עַד-עֲזֹקָה וְעַד-מִקְדָּה: וַיְהִי בִגְסָם מִפְּנֵי יִשְׂרָאֵל חֵם  
 בְּמוֹרֵד בֵּית-חֹרֹן וַיְהוֶה הַשָּׁלִיחַ עֲלֵיהֶם אֲבָנִים וְדָלוֹת  
 מִן-הַשָּׁמַיִם עַד-עֲזֹקָה וַיָּמָתוּ רַבִּים אֲשֶׁר-מָתוּ בְּאֶבְנֵי הַפָּרָד  
 מֵאֲשֶׁר הָרְגוּ בְּנֵי-יִשְׂרָאֵל בְּחֶרֶב:

(Joshua x, 6-11)

20

(b)

יְהוָה מְהֵרָבּוּ צָרִי	רַבִּים קָמִים עָלַי:
רַבִּים אֲמָרִים לְנַפְשִׁי	אֵין יְשׁוּעָתָה לִּי בְּאֵלֵהֶם:
וְאַתָּה יְהוָה מִגֹּן בְּעָרִי	כְּבוֹדִי וּמְרִים רֹאשִׁי:
קוֹלִי אֶל-יְהוָה אֶקְרָא	וַיַּעֲנֵנִי מִתֵּר קֹדְשׁוֹ:
אֲנִי שָׁכַבְתִּי וְאַיֶּשְׁנָה	תִּקְיָצוּתִי כִּי יְהוָה יִסְמְכֵנִי:
לֹא אִירָא מִרְבָּבוֹת עִם אֲשֶׁר סָבִיב שָׁתוּ עָלַי:	
קוֹמָה יְהוָה הוֹשִׁיעֵנִי אֱלֹהֵי	
כִּי הַבֵּית אֶת-כָּל-אִבִּי לְחִי	שְׁנֵי רָשָׁעִים שִׁבְרָתָ:
לִיְהוָה הִישׁוּעָה	עַל-עַמּוֹד בְּרַבְתָּךְ:

(Psalm III)

20

(c)

## שַׁבַּת הַמִּלְכָּה

הַחֲמִשָּׁה מֵרֹאשׁ הָאֵילָנוֹת נִסְתַּלְקָה  
בָּאוּ וַיֵּצֵאוּ לְקִרְיַת שַׁבַּת הַמִּלְכָּה  
הִנֵּה הִיא יוֹרֶדֶת הַקְדוּשָׁה הַבְּרוּכָה  
וְעַמָּה מְלָאכִים צָבָא שְׁלוֹם וּמְנוּחָה  
בָּאִי בָּאִי הַמִּלְכָּה!

בָּאִי בָּאִי הַבִּלְהָה!

שְׁלוֹם עֲלֵיכֶם מְלָאכִי הַשְׁלוֹם!

קִבְּלֵנוּ פָּנֵי שַׁבַּת בְּרִנָּה וּתְפִלָּה  
הַפִּתְיָה נְשׁוּבָה בְּלֵב מָלֵא גִילָה  
שֶׁם עָרוֹךְ הַשְּׁלֶחֶן הַגָּדוֹל הָאֵירוֹ  
כָּל-פְּנוֹת הַבַּיִת יִזְרְחוּ יִזְהִירוּ

שַׁבַּת שְׁלוֹם וּבִרְכָּה

שַׁבַּת שְׁלוֹם וּמְנוּחָה

בְּאַחֲכֶם לְשְׁלוֹם מְלָאכִי הַשְׁלוֹם!

.....

הַחֲמִשָּׁה מֵרֹאשׁ הָאֵילָנוֹת נִסְתַּלְקָה

בָּאוּ וַיֵּלְכֻה אֶת-שַׁבַּת הַמִּלְכָּה

צִאתָה לְשְׁלוֹם הַקְדוּשָׁה הַנּוֹכָה

דְּעִי שְׁשַׁת יָמִים אֶל שׁוּבְךָ גִּתְּכָה

כֵּן לְשַׁבַּת הַבָּאָה!

כֵּן לְשַׁבַּת הַבָּאָה!

צִאתְכֶם לְשְׁלוֹם מְלָאכִי הַשְׁלוֹם!

2. Parse the words underlined in the two passages you have translated. 18

3. Translate into pointed Biblical Hebrew :—

- (a) And he took the wives and daughters of their king and went out of his land.  
 (b) Take care lest ye fall into the hands of the peoples of that land.  
 (c) Behold I will bring my people out of the desert and they shall build cities.  
 (d) The priests of the people built altars to God in the land whereunto they had come.

22

4. Point and translate into English :—

- (a) ויאמר לו איש-האלהים הנה נמצאו החמורים אשר הלכת לבקש:  
 (b) ויקח האלהים את-האדם ואת-אשתו וישכנם בארץ הטובה אשר עשה להם:  
 (c) שמע את-דברי אלהיך כתבם על לבבך:  
 (d) ויקומו אנשי הארץ ויקחו את-בן-המלך הקטן וימליכוו תחת אביו:

20

# HEBREW

## HIGHER GRADE—(FIRST PAPER)

Tuesday, 22nd March—9.30 A.M. to 12 NOON

*The value attached to each question, or to each part of a question, is shown in the margin.*

N.B.—Begin the answer (or fair copy of an answer) to each question on a fresh page.

Marks will be deducted for bad spelling and bad punctuation, and for writing that is difficult to read.

Answers in Hebrew must be written in the square character.

1. Translate into English any **TWO** of the following passages (a), (b), and (c).

(a)

וַיֹּאמֶר דָּוִד אֶל-הָאֲנָשִׁים הַעֹמְדִים עִמּוֹ לֵאמֹר מַה-יַּעֲשֶׂה לָאִישׁ  
אֲשֶׁר יָבֹה אֶת-הַפְּלִשְׁתִּי הַלֵּז וְהַסִּיר חֶרֶף מֵעַל יִשְׂרָאֵל כִּי  
מִי הַפְּלִשְׁתִּי הָעָרַל הַזֶּה בִּי חֶרֶף מֵעֲרֻכּוֹת הָאֱלֹהִים חַיִּים:  
וַיֹּאמֶר לוֹ הָעָם בְּדָבָר הַזֶּה לֵאמֹר כֹּה יַעֲשֶׂה לָאִישׁ אֲשֶׁר יִבְנוּ:  
וַיִּשְׁמַע אֱלִיאֵב אֶחָיו הַגָּדוֹל בְּדָבָרוֹ אֶל-הָאֲנָשִׁים וַיַּחֲרֹאֲף  
אֱלִיאֵב בְּדָוִד וַיֹּאמֶר לְמוֹתָוִה יִרְדָּתָּ וְעַל-מִי נִשְׁשַׁת מָעַט הַצֹּאֵן  
הַזֶּה בַּמִּדְבָּר אֲנִי יִדְעָתִי אֶת-זִדְדָּתָּ וְאֵת רָע לְבָבְךָ כִּי לְמַעַן  
רְאוֹת הַמֶּלֶךְמָמָה יִרְדָּתָּ: וַיֹּאמֶר דָּוִד מַה-עָשִׂיתִי עִתָּה הֲלוֹא  
דָּבָר הוּא: וַיִּסָּב מֵאֲצִלוֹ אֶל-מוֹל אַחֵר וַיֹּאמֶר בְּדָבָר הַזֶּה  
וַיִּשְׁבַּחוּ הָעָם דָּבָר בְּדָבָר הִרְאֵשׁוֹן: וַיִּשְׁמְעוּ הַדְּבָרִים אֲשֶׁר  
דָּבָר דָּוִד וַיַּגִּידוּ לְכֹהֵן שָׂאוֹל וַיִּקְחֵהוּ: וַיֹּאמֶר דָּוִד אֶל-שָׂאוֹל  
אֶל-יִפְל לִב-אָדָם עָלָיו עֲבָדְךָ יִלְךָ וְנִלְחַם עִם-הַפְּלִשְׁתִּי הַזֶּה:

(I Samuel xvii, 26-32)

29

(b)

וִרְאוּ מִי-בָרָא אֱלֹהִים	שָׂאוֹל מָרוֹם עֵינֵיהֶם
לְכֹלֵם בְּשֵׁם יִקְרָא	הַמוֹצִיא בַמִּסְפָּר צָבָאָם
אִישׁ לֹא נִעְדָּר:	מְרֹב אוֹנִים וְאַמִּיץ כַּחַ
וַתִּדְבֹּר יִשְׂרָאֵל	לְמַה תֹּאמַר יַעֲקֹב
וּמֵאַלְחֵי מִשְׁפָּטִי יַעֲבוֹר:	וְסִתְּרָה דְרָכִי מִיְּהוָה
אִם לֹא שָׁמַעַתָּ	הֲלוֹא יִדְעַתָּ
בּוֹרָא קְצוֹת הָאָרֶץ	אֱלֹהֵי עוֹלָם יְהוָה
אִין חֶקֶר לְתִבְנוֹתָיו:	לֹא יֵיעַף וְלֹא יִיגַע
וְלֹאִין אוֹנִים עֲצָמָה יִרְבֶּה:	נֶחֱזַק לִיעֲרָף כַּחַ
וּבַחֲוָרִים כָּשׁוֹל יִכָּשְׁלוּ:	וַיַּעֲפוּ וַיָּעָרִים וַיִּגְעוּ
וְכִי יִחוּה יַחֲלִיפוּ כַחַ יַעֲלוּ אֲבָר בְּנִשְׁרִים	וְכִי יִחוּה יַחֲלִיפוּ כַחַ יַעֲלוּ אֲבָר בְּנִשְׁרִים
יִלְכוּ וְלֹא יֵיעָפוּ:	יִרְצוּ וְלֹא יִיגְעוּ

(Isaiah xl, 26-31)

29

- (c) יָמִים רַבִּים יָשְׁבוּ גִלְיָ צִיּוֹן שְׁאֲנָנִים  
 בְּקֶצֶה נֹגֵב אֵירָפָה בְּחֲצִי־אֵי־הַשָּׁפְנוֹם;  
 בַּעֲרֵב עָרֵב שָׁבָתָם וּמְנוּחָתָם וְנִעְמָה  
 וּבְגִי מִזְחֶמֶד כָּל מִזְחֶמֶד לֹא מָנְעוּ מִהֶמָּה  
 טוֹב הָאָרֶץ אָכְלוּ כְּאֲחֵים יָשְׁבוּ  
 שָׁכְחוּ גִלּוּתָם וּכְאֲזֻרָּתִים הִתְחַשְּׁבוּ;  
 עַד בּוֹא עִם חֲעִי לִקְבֵּי חֶבֶר כִּהְגִּי אֲוֹן  
 נִישְׁרָשׁוּם נִישְׁרָשׁוּם וּלְאָרֶץ גֹּדֵר שָׁלַחַו  
 וּבְקִנּוֹן חֹרֶג אֶחָ וּבְלֵב קָשָׁה מֵאֲכָן  
 עֲשָׂרִים רַבּוֹא אָדָם לֹא־לִהְיֵהֶם זִבְחוֹ.  
 \* \* \* \* \*  
 וּבְחֶשֶׁד סִתְרוּ שׁוֹפֵט תִּבְלִי יִסְגֹּר  
 וּבְכִי עֲשׂוּקִים לֹא יָקָם תַּחַת שָׁמַיִם.

(Judah Leb Gordon)

29

## 2. Point and translate :—

- (a) אֶל־חֹסֶתֶר אֶת־פִּנִּיךְ מִחַעֵם הַזֶּה פִּן־יִפְּלוּ לִפְנֵי אִיבֵיהֶם:  
 (b) וַיְהִי בַיָּמִים הָהֵם וַיֵּצֵא הָאִישׁ וַיֵּרָא אִישׁ מִצְרִי מִבֵּה אִישׁ  
 עִבְרִי וַיֵּךְ אֶת הַמִּצְרִי וַיִּטְמְנֵהוּ בַחֹל:  
 (c) וַתִּקַּח הָאִשָּׁה מִפְּרִי הָעֵץ וַתֹּאכַל וַתֵּתֶן גַּם לָאִשָּׁה וַיֹּאכַל:  
 (d) הִנֵּה אֲנֹכִי יֹשֵׁב פֶּה וְאַתֶּם שׁוֹבִי אֶל־אֲרָצְכֶם וַיְהוּה עִמָּכֶם  
 וַהּוֹשִׁיבְכֶם בָּהּ בְּשָׁלוֹם:

28

## 3. Write :—

- (a) the 2nd plural masculine imperfect Qal of

יָרַד, נָגַשׁ, שָׁב, אָחַז, אָכַל

5

c

Marks

- (b) the 3rd singular masculine perfect and imperfect, singular masculine imperative, infinitive construct and singular masculine participle of

the Qal of	לָקַח
the Hiphil of	יָצַא
the Niphal of	עָבַד
the Pual of	בָּרַךְ

20

- (c) the construct plural of

יָם, יוֹם, אִשָּׁה, אָב, בֵּית

5

4. In what ways does Hebrew express the reflexive of a verb ?

4

## HEBREW

### HIGHER GRADE—(SECOND PAPER)

Tuesday, 22nd March—1.30 P.M. to 3.30 P.M.

*The value attached to each question is shown in the margin.*

**N.B.**—Begin the answer (or fair copy of an answer) to each question on a fresh page.

Marks will be deducted for writing that is difficult to read.

Answers must be written in the square character.

Marks

1. Render into pointed Biblical Hebrew :—

Now as they went on their journey they came at eventide to a great river and spent the night there. But the young man went down to wash himself, and a fish leaped out of the river, and would have swallowed him up. But the angel said unto him, "Take hold of the fish." And he caught hold of it, and cast it up upon the land. And the angel said unto him, "Cut the fish open and take out the heart and the liver and keep them safe." And the young man did as the angel commanded him ; but they roasted the fish and ate it. And they both went on their way till they drew near to the city. And the young man said unto the angel, "My lord, of what use is the heart and the liver of the fish ?" And he replied and said. "Touching the matter of the heart and the liver of the fish, if an evil spirit has come upon any man or woman, we must make a smoke thereof before that man or woman and they shall be no more vexed."

60

2. Render into pointed Biblical Hebrew :—

- (a) The men of valour drove the enemy horsemen out of their cities, and slew many of them.
- (b) Let us go up to the city of our God and bow down before Him in His holy temple.
- (c) I have commanded you not to eat of the fruit of any tree lest thou and thy wife die.
- (d) He went down to the river to drink, then rose and went up again.

20 -

## FRENCH

LOWER GRADE—(PAPER (a) )

### AURAL COMPREHENSION TEST

Tuesday, 15th March—9.15 A.M. to 9.45 A.M.

*This paper must not be seen by any candidate.*

### INSTRUCTIONS TO THE TEACHER

1. Use the ten minutes preceding the beginning of the test to make yourself thoroughly familiar with the passage to be read.
2. (a) When so instructed by the supervising officer, read to the candidates the "Instructions to Candidates" given below.
- (b) Write on the blackboard the title of the passage to be read, i.e. "L'Avenue d'arbres."
3. Then read the passage aloud to the candidates, speaking clearly and naturally, and taking not more than **four minutes** to the reading.
4. After this reading inform the candidates that they may now turn over the printed question papers, and that they will have three minutes in which to study the questions. Remind the candidates that they may make notes during this interval of three minutes, but only on the sheets provided for the answers. You yourself will not be allowed to see the questions which are to be answered by the candidates.
5. When so instructed by the supervising officer, read the passage a second time, in exactly the same manner as on the first occasion and taking the same amount of time.
6. Remind the candidates that the questions are to be answered in English.

### INSTRUCTIONS TO CANDIDATES

1. Listen carefully to the following passage with a view to answering questions on its content.
2. The questions are to be answered in English.
3. You are on no account to touch the printed question paper or to do any writing until you are told to do so.
4. The procedure will be as follows :—
  - (i) The passage will be read **twice**, with an interval of three minutes between the readings.

(ii) After the first reading you will be allowed to turn over the printed question paper and you will have three minutes in which to study the questions.

(iii) After the second reading you will write your answers on the sheet provided for this purpose.

5. All writing during the first and second readings is **strictly forbidden**. Notes may be made during the interval between the readings, but only on the sheet provided for the answers.

6. You may not ask for the repetition of any word or phrase.

7. I am going to write on the blackboard the title of the passage, which is "L'Avenue d'arbres."

**Passage to be read to the candidates :—(Maximum time of reading—four minutes).**

### L'Avenue d'arbres

Un jour que je reconduisais les moutons à la ferme, je fus surpris par un brouillard si épais qu'il me fut impossible de reconnaître mon chemin et je me trouvai tout à coup auprès d'un grand bois qui m'était inconnu.

Je poussai les moutons vers un champ qui était à côté, mais ils refusèrent d'avancer. Je passai devant eux pour voir ce qui les empêchait d'aller plus loin, et je reconnus la rivière qui coulait au pied de la colline.

Je restai un long moment à regarder ; puis je ramenai mes moutons le long du bois et bientôt je me trouvai sur un sentier étroit. Subitement les moutons quittèrent ce sentier pour tourner à gauche, mais je les arrêtai immédiatement, car je venais d'apercevoir l'entrée d'une église juste devant eux. Les portes étaient grandes ouvertes et de chaque côté j'aperçus deux lumières rouges qui éclairaient deux lignes de piliers énormes. Tout au fond je vis des fenêtres faiblement éclairées.

J'avais beaucoup de difficulté à empêcher les moutons d'entrer dans cette église, et, tout en les repoussant, je commençai à penser avec inquiétude que le temps fuyait et que sans aucun doute mon maître m'attendait avec impatience à la ferme. Je me persuadai qu'en retournant sur mes pas, je retrouverais facilement la ferme, et, en faisant le moins de bruit possible, je repoussai les moutons sur le sentier par lequel ils étaient venus.

Mais juste à ce moment-là une voix d'homme dit près de moi :

"Laisse-les donc rentrer, ces pauvres bêtes !"

Je reconnus avec joie le frère du fermier et je lui montrai l'église en demandant ce que c'était.

"Mais, mon enfant, c'est l'avenue d'arbres qui conduit à la ferme. Je craignais que tu ne retrouves pas l'avenue et j'ai donc suspendu les deux lanternes."

Je ne compris pas immédiatement ce qu'il voulait dire et ce ne fut qu'au bout d'un instant que je vis que ces gros piliers étaient tout simplement des troncs d'arbre et que les fenêtres n'appartenaient pas à une église mais à la cuisine de la ferme.

Les moutons avaient été plus intelligents que moi.

## FRENCH

LOWER GRADE—(PAPER (a) )

## AURAL COMPREHENSION TEST

Tuesday, 15th March—9.15 A.M. to 9.45 A.M.

*Answers are to be written on the sheet provided for the purpose, on which are also to be written any notes made between the readings.*

## QUESTIONS

	Marks
1. Where was the boy making for? Why was it difficult for him to get there? When did he realize that he had lost his way?	2
2. What familiar landmark did he find? How did he come to find it?	3
3. Where did he then drive his sheep?	1
4. What did the sheep suddenly do? Describe what the boy then saw.	3
5. With what difficulty was the boy faced? What else worried him and what did he persuade himself was the correct action to take?	2½
6. Who met the boy? What did this person say and what reason had he for saying it?	1½
7. What mistake had the boy been making? Explain how he had come to make this mistake.	2
	<hr/> 15 <hr/>

## FRENCH

LOWER GRADE—(PAPER (b) )

Tuesday, 15th March—10.0 A.M. to 12.15 P.M.

*The value attached to each question is shown in brackets after the question.*

**N.B.**—Begin the answer (or fair copy of an answer) to each question on a fresh page.

Marks will be deducted for bad spelling and bad punctuation, and for writing that is difficult to read.

1. Translate carefully, with due attention to English form and expression :—

*Holidays at Home*

Ce dernier jour de l'école les élèves sortirent des classes dans un désordre joyeux.

La question de prix et de récompenses était tout à fait effacée par une autre bien plus importante.

Les vacances ; on allait partir en vacances ; on se demandait où on allait, on riait, on comparait. Finalement tout le monde était d'accord sur le point principal. C'est qu'il y aurait partout du sable, du soleil, et de l'eau et que par conséquent on s'amuserait follement.

Une seule élève restait muette. Une autre, remarquant son silence, lui demanda malicieusement :

—Et, toi, où vas-tu ?

Marianne se redressa.

—Je ne sais pas encore, dit-elle. J'hésite entre la montagne et la plage.

Toutes se turent un instant. Puis Yvonne dit :

—Moi, je sais la vérité. Tu ne vas nulle part. Raison d'économie, n'est-ce pas ?

Et sur ces mots on se sépara assez brusquement.

Le lendemain et les jours qui suivirent, Marianne et ses sœurs se sentirent complètement abandonnées.

—Qu'est-ce que vous avez ? dit enfin leur mère. Vous avez l'air tellement triste. Allez vous amuser et cessez de vous plaindre toute la journée.

Les trois sœurs s'en allèrent au fond du jardin.

—J'ai une idée merveilleuse, dit Marianne tout à coup. Nous allons faire notre plage à nous dans la sablière<sup>(1)</sup> près de la rivière. Nous nous amuserons autant que les autres, mieux même.

Les deux cadettes sautèrent de joie. Les inventions de Marianne étaient toujours magnifiques. Elles se mirent vite au travail. (30)

(1) la sablière—the sand-pit

2. Read the passage below, then answer the questions which follow it.

**N.B.—The passage is NOT to be translated.**

*Balandran*

Balandran était pour moi le serviteur parfait : toujours ponctuel, actif, silencieux. Il se levait avant le jour sans bruit, allumait le feu, chauffait le repas du matin, installait ma table. Bien souvent je dormais encore. A mon réveil la maison était prête et il avait disparu.

- 5 A sept heures il traversait le fleuve, et s'éloignait vers les pâturages. Il devait y arriver une demi-heure plus tard. Il en revenait vers onze heures. A peine rentré, il se mettait à préparer un repas qui se composait de légumes secs, de fromage, et de noix. Je mangeais à une heure, tout seul. Lui prenait son repas dans la resserre.<sup>(1)</sup>

- 10 Après le repas nous causions ; il me donnait des nouvelles de la terre et des animaux ; il ne parlait jamais des hommes. L'après-midi il restait dans l'île. A la tombée du jour il repassait le fleuve et, après une courte absence pour soigner les animaux, il revenait à la maison en pleine nuit.

De temps en temps il me montrait les trésors de la resserre. Il m'ouvrait  
 15 les armoires et me faisait admirer les provisions—trois mois de provisions. Il disait, " Il faut être indépendant, voyez-vous, et puis on n'a pas besoin des hommes. Après tout, c'est pour trouver la solitude qu'on est venu s'installer dans une île." Et, contemplant ses sacs de lentilles, ses bouteilles d'huile, son tonneau de vin, il ajoutait fièrement : " Nous sommes forts."

20 Il pêchait et chassait aussi, mais jamais inutilement, pour le plaisir. Poisson, gibier ne servaient qu'à la nourriture ; il ne tuait jamais pour tuer.

Un jour en me promenant, je trouvai Balandran au bord du fleuve près du rocher sous lequel il gardait son filet. Il y faisait du feu : trois pierres, trois morceaux de bois, quelques flammes ; rien par-dessus. Le feu ne cuisait  
 25 rien ; connaissant Balandran, je m'en étonnai. " C'est pour faire de la fumée, Monsieur Martial, me dit-il. Comme ça, sur la rive, on sait que l'île est habitée, et on ne vient pas ici. Personne, ajouta-t-il d'un air content, n'est venu dans l'île depuis dix ans. Nous sommes chez nous ; il faut à tout prix préserver notre solitude."

30 C'était là son grand souci. La nuit aussi bien que le jour il veillait sur la paix de l'île. Rien n'échappait à son œil patient.

(1) la resserre—the store-room.

### QUESTIONS

#### A. Answer in English :—

Marks

(1) What was the relationship between the two men ?

1

(2) " Balandran était toujours ponctuel." (line 1)

Give a detailed time-table of the activities that Balandran carried out regularly every day.

7

(3) Explain why Balandran attached such importance to his store and what he meant by " Nous sommes forts." (line 19)

3½

(4) What do you understand by " jamais inutilement " in " Il pêchait et chassait aussi, mais jamais inutilement " ? (line 20)

Show how this idea is further developed in the text.

1½

(5) (a) Explain the full significance of the sentence, " Le feu ne cuisait rien ; connaissant Balandran, je m'en étonnai." (lines 24, 25)

(b) For what reasons was Balandran making a fire ?

(c) Show that these reasons are in keeping with Balandran's main characteristic, as already shown in the passage.

(d) What other indications are there in the last two paragraphs of the same characteristic ?

8

#### B. Answer in French :—

(6) Pourquoi Balandran se levait-il sans bruit ?

2

(7) Qu'est-ce que c'est qu'un pâturage ?

2

(8) Pourquoi Balandran ne parlait-il jamais des hommes ?

2

(9) Pourquoi ne restait-il pas toute la journée dans l'île ?

3

30

Marks

3. Write, in French, a letter to a French friend, based on the points mentioned in the summary.

**N.B.**—Marks will be deducted for failure to begin and end the letter in a correct way.

The Perfect Tense should be used in the account of the accident.

The length of the letter, excluding the formal beginning and ending, should be approximately the same as that of your answer to question 1 (i.e., approximately 230 words).

**Summary :—**

Votre ami(e) français(e) vous a invité(e) à passer vos vacances en France. Vous avez accepté l'invitation, mais vous vous cassez la jambe en rentrant du lycée à bicyclette. Vous ne pouvez plus partir. Vous décrivez l'accident à votre ami(e) et vous lui exprimez vos regrets.

(25)

## FRENCH

### HIGHER GRADE—(FIRST PAPER)

Tuesday, 16th March—10.0 A.M. to 12.15 P.M.

*The value attached to each question is shown in brackets after the question.*

**N.B.**—Begin the answer (or fair copy of an answer) to each question on a fresh page.

Marks will be deducted for bad spelling and bad punctuation, and for writing that is difficult to read.

1. Translate carefully, with due attention to English form and expression :—

#### *Visites importunes*

Armées, l'une d'un torchon, l'autre d'un balai, Mlle Francine et sa bonne Annette livraient, du matin au soir, une guerre sans merci contre la poussière. Une passion immodérée pour l'ordre et la propreté réglait leur vie.

Aussi, servante et maîtresse, craignaient-elles, comme autant de calamités, les hommes, les enfants, et les animaux—toutes espèces, on le sait, nuisibles à la bonne tenue d'un ménage.

Les hommes, on connaissait bien leur manque d'ordre ! Il n'en venait pas un à la maison sans qu'Annette se sentit obligée ensuite d'essuyer les traces de l'intrus.

Et les enfants ! Mlle Francine frémissait d'angoisse, quand elle voyait entrer dans son salon blanc et rose une de ces créatures diaboliques, qui ne se tiennent jamais tranquilles et qui touchent à tout ce qu'elles voient.

Il fallait cependant tolérer les hommes et les enfants. Mais envers les animaux Annette et sa maîtresse se montraient impitoyables. Aucun n'avait droit d'entrée dans la jolie petite maison.

Or, un matin d'avril, pendant qu'Annette bavardait un peu avec le facteur, un petit chat se faufila inaperçu dans la maison par la porte entr'ouverte et s'aventura jusqu'à l'escalier. Il regarda tout autour, inspecta le beau vestibule, peint de couleurs tendres, et fit entendre un miaulement satisfait.

"Tiens ! semblait-il dire, ce n'est pas mal ici !"

Annette qui rentrait, les lettres à la main, ouvrit des yeux indignés.

"Mademoiselle ! cria-t-elle de la même voix dont elle aurait appelé : 'Au feu !' mademoiselle, il y a un chat dans l'escalier !"

(30).

2. Carefully read the poem given below, then answer the questions which follow it.

**N.B.—The passage is NOT to be translated.**

*Les Vacances*

- O mes frères, voici le beau temps des vacances !  
 Le mois d'août, appelé par dix mois d'espérances !  
 De beaucoup votre aîné, je ne puis oublier  
 Août et ses jeux riants ; alors, pauvre écolier,  
 5 Je veux voir mon pays, notre petit domaine,  
 Et toujours le mois d'août au logis me ramène.  
 Quelle joie en rentrant, mais calme et sans délire,  
 Quand, debout sur la porte et tâchant de sourire,  
 Une mère inquiète est là qui vous attend,  
 10 Vous baise sur le front, et pour vous, à l'instant,  
 Presse les serviteurs ! Puis le foyer pétile ;  
 Nul enfin n'est absent du repas de famille !  
 Monotone la veille, et vide, la maison  
 S'anime : un rayon d'or luit sur chaque cloison<sup>(1)</sup> ;  
 15 Le couvert s'élargit ; comme des fruits d'automne,  
 D'enfants beaux et vermeils la table se couronne ;  
 Et puis mille babils, mille gais entretiens,  
 Un fou rire, et souvent de longs pleurs pour des riens.  
 Mais plus tard, lorsqu'on touche aux soirs gris de septembre,  
 20 En cercle réunis dans la plus vaste chambre,  
 C'est alors qu'il est doux de veiller au foyer !  
 On roule près du feu la table de noyer,  
 On s'assied ; chacun prend son cahier, son volume ;  
 Grand silence ! on n'entend que le bruit de la plume,  
 25 Le feuillet qui se tourne, ou le châtaignier vert  
 Qui craque, et l'on se croit au milieu de l'hiver.  
 Les yeux sur ses enfants, et rêveuse, la mère  
 Sur leur sort à venir invente une chimère<sup>(2)</sup>,  
 Songe à l'époux absent depuis le point du jour,  
 30 Et prend garde que rien ne manque à son retour.  
 L'aïeule, cependant, sur sa chaise se penche,  
 Et devant le Seigneur courbe sa tête blanche.  
 Ecoutez-la, mon Dieu, pour elle et pour nous tous !  
 Cette femme, ô mon Dieu, qui vous prie à genoux,  
 35 Ne la repoussez pas ! Soixante ans à la gêne<sup>(3)</sup>  
 Et toujours courageuse elle a porté sa chaîne ;  
 Une heure de repos avant le grand sommeil !  
 Avant le jour sans fin, quelques jours au soleil.

<sup>(1)</sup> la cloison—le mur.

<sup>(2)</sup> une chimère—un rêve qui ne se réalisera peut-être pas

<sup>(3)</sup> à la gêne—à court d'argent et, par conséquent, pleine de soucis.

## QUESTIONS

## A. Answer in English :—

Marks

1. (a) Why is the author in a position to tell his brothers all that he does tell them ?

(b) Where has the author been ?

2

2. (a) From what is said about the actual homecoming, describe the welcome given.

(b) What are the author's own feelings on this occasion ?

3½

1

3. Explain the meaning of the following sentences and show, in detail, how these ideas are developed in other lines.

(a) "Nul enfin n'est absent du repas de famille !" (line 12)

(b) "Monotone la veille, et vide, la maison s'anime." (lines 13, 14)

5

4. (a) What picture does the author give of the autumn evenings in his home ?

(b) Say what everyone is doing or thinking then.

(c) What sounds are heard ?

8½

5. Why does the author specially pray for his grandmother ?

What does his prayer ask for her ?

3

## B. Answer in French :—

6. Pourquoi l'auteur dit-il que le mois d'août est "appelé par dix mois d'espérances" ? (line 2).

3

7. "D'enfants beaux et vermeils" . . . . "comme des fruits d'automne" (lines 16, 15).

Expliquez cette comparaison.

2

8. Pourquoi se croit-on au milieu de l'hiver ? (line 26).

2

—

30

—

3. Translate carefully, with due attention to English form and expression :—

*Bormes*

La petite ville de Bormes est bâtie sur les versants de deux collines qui se regardent. Dans les temps passés elle était ainsi bien située pour guetter l'arrivée des pirates sarrasins et se défendre contre eux. De la plaine jusqu'à la ville, par des chemins mal taillés dans la roche, la montée jadis était rude. Elle ne l'est plus ; les voitures et les charrettes peuvent gravir un spacieux chemin, moderne et bien entretenu.

La place publique de Bormes est une terrasse avec des balustrades où l'on peut s'accouder devant un horizon de plaines, de collines, d'îles, et de mer bleue. Des rosiers y fleurissent, respectés par les enfants de l'école, auxquels M. le Maire est allé expliquer, un jour, comment le respect des propriétés publiques, qui est le devoir de tout individu, fait la joie de la communauté.

M. Rinal, chirurgien de la marine, cherchant, comme il disait, un coin où passer la soirée de sa vie, avait été frappé de la beauté de Bormes. Au pied de ces collines, la vie semblait s'agiter comme la mer au pied d'un îlot escarpé sans

pouvoir troubler le calme des habitants. " Pour venir me trouver ici, s'était dit M. Rinal, il faudra vraiment qu'on ait besoin de moi, ou qu'on m'aime." Et il s'était installé dans une maison, simple comme toutes celles du pays, et qui dominait la place. (25)

## FRENCH

HIGHER GRADE—(SECOND PAPER (a) )

### AURAL COMPREHENSION TEST

Tuesday, 15th March—1.30 P.M. to 2.0 P.M.

*This paper must not be seen by any candidate.*

### INSTRUCTIONS TO THE TEACHER

1. Use the ten minutes preceding the beginning of the test to make yourself thoroughly familiar with the passage to be read.
2. When so instructed by the supervising officer, read to the candidates the "Instructions to Candidates" given below.
3. Then read the passage aloud to the candidates, speaking clearly and naturally, and taking not more than **four minutes** to the reading.
4. After this reading inform the candidates that they may now turn over the printed question papers, and that they will have three minutes in which to study the questions. Remind the candidates that they may make notes during this interval of three minutes, but only on the sheets provided for the answers. You yourself will not be allowed to see the questions which are to be answered by the candidates.
5. When so instructed by the supervising officer, read the passage a second time, in exactly the same manner as on the first occasion and taking the same amount of time.
6. Remind the candidates that the questions are to be answered in English.

### INSTRUCTIONS TO CANDIDATES

1. Listen carefully to the following passage with a view to answering questions on its content.
2. The questions are to be answered in English.
3. You are on no account to touch the printed question paper or to do any writing until you are told to do so.
4. The procedure will be as follows :—
  - (i) The passage will be read **twice**, with an interval of three minutes between the readings.
  - (ii) After the first reading you will be allowed to turn over the printed question paper and you will have three minutes in which to study the questions.
  - (iii) After the second reading you will write your answers on the sheet provided for this purpose.
5. All writing during the first and second readings is **strictly forbidden**. Notes may be made during the interval between the readings, but only on the sheet provided for the answers.
6. You may not ask for the repetition of any word or phrase.

Passage to be read to the candidates :—(Maximum time of reading—four minutes).

*Jacques se fait important.*

Jacques avait quinze ans. Il estimait qu'il pouvait très bien se tirer d'affaire, quoique ce fût son premier voyage à l'étranger. La dame assise en face de lui n'avait pas l'air de vouloir l'obliger à accepter sa surveillance et elle lui parlait comme à un jeune homme intelligent. Jacques voulait confirmer la bonne opinion qu'elle paraissait avoir de lui et il engagea volontiers la conversation avec elle.

Il exagéra un peu en racontant ses aventures. Il lui expliqua qu'il avait été gravement malade et qu'il avait besoin de bon air pour se remettre. Il allait rejoindre son oncle en Suisse. Sans doute il profiterait de l'occasion pour apprendre l'allemand. Il avait déjà des connaissances considérables de l'anglais. Quoiqu'il eût beaucoup voyagé, il venait en Suisse pour la première fois.

Bientôt la dame savait aussi que le grand-père de Jacques, ancien capitaine de vaisseau, avait fait plusieurs fois le tour du monde et pris part à de brillantes actions navales.

Ainsi Jacques prenait plaisir à se présenter tel qu'il voulait paraître aux yeux du monde.

Enfin ils arrivèrent en Suisse. La dame expliqua à Jacques que, même s'il ne savait pas encore parler allemand, il pourrait toujours se faire entendre, puisque beaucoup de gens, même en Suisse allemande, parlaient aussi français ou anglais. Jacques, qui en vérité ne savait pas très bien l'anglais, craignait d'être mis à l'épreuve.

Aussitôt descendu du train, il voulut dire adieu à la dame, mais elle lui dit qu'elle ne le quitterait que lorsqu'il aurait retrouvé son oncle, qu'il n'avait jamais vu. Sur le quai ils virent bientôt un grand monsieur blond qui regardait attentivement tous les jeunes gens qui descendaient du train.

C'était l'oncle.

Jacques fut déconcerté de voir que la dame connaissait son oncle. Elle lui raconterait certainement une partie de la conversation tenue en chemin de fer. Adieu le capitaine de vaisseau et tous les personnages distingués qu'il avait inventés !

—“Ne manquez pas de venir nous voir bientôt,” dit l'oncle à la dame.

Elle répondit : “Je serai ravie de retrouver mon compagnon de voyage qui a tant d'esprit et d'imagination.”

Jacques rougit de honte.

## FRENCH

HIGHER GRADE—(SECOND PAPER (a) )

### AURAL COMPREHENSION TEST

Tuesday, 16th March—1.30 P.M. to 2.0 P.M.

*Answers are to be written on the sheet provided for the purpose, on which are also to be written any notes made between the readings.*

## QUESTIONS

	Marks
1. For what reasons did Jacques find his travelling companion agreeable ?	1
2. What did he tell her about—	
(a) himself and	4
(b) his family ?	2
3. What were Jacques' aims during this conversation ? How did he carry them out ?	2
4. (a) What language difficulty was Jacques going to meet ?	
(b) What solution did the lady offer ?	
(c) Why did this solution not commend itself entirely to Jacques ?	2
5. (a) Why was the lady still with Jacques when he met his uncle ?	
(b) What were Jacques' feelings when his uncle and the lady met ? Why did he feel thus ?	2½
6. Why did his uncle's invitation please the lady but embarrass Jacques ?	1½
	<hr/>
	15

## FRENCH

HIGHER GRADE—(SECOND PAPER (b) )

Tuesday, 15th March—2.15 P.M. to 4.0 P.M.

*The value attached to each question is shown in brackets after the question.***N.B.**—Begin the answer (or fair copy of an answer) to each question on a fresh page.**Marks will be deducted for writing that is difficult to read.**

1. Translate into French :—

It was difficult to begin work again after the holidays, as the weather was so good and as I wanted to be out of doors, but after a few days I set about writing another book and that helped to occupy my mind. The new book was a novel; the hero was a young Scot who had come to London to make his fortune. He was not a great hero, for, like all of us, he had a considerable number of weaknesses, but all the same I began to like him. I had called my novel "Golden Pavements" because of the old saying<sup>(1)</sup> that the streets of London are paved with gold. The hero did not, however, become rich as quickly as he had hoped; on the contrary, he remained for a long time quite poor, but he never lost hope.

Every evening I used to rush home from the office, prepare my supper, eat it, and then sit down and write.

The months passed quickly and soon it was Christmas ; I had still not finished my book. My neighbour came and invited me to share his Christmas dinner and persuaded me to take a rest.

"No-one should work at Christmas," he said. "Everyone must enjoy himself."

His words made me smile, for, as usual, he looked very solemn.

"Smile, if you like," he said, "but Dickens loved Christmas and what was good enough for him is good enough for me."

(1) the saying—le dicton

(50)

2. Write, in French, an essay on one of the following subjects. Your answer should not be shorter than the translation of Question 1.

(a) Les avantages et les désavantages d'une langue internationale.

(b) On part en vacances.

(Vous partez en vacances. Décrivez la scène à la gare *ou* au port *ou* à l'aéroport, etc.).

(25)

## GERMAN

LOWER GRADE—(PAPER (a) )

### AURAL COMPREHENSION TEST

Thursday, 17th March—9.15 A.M. to 9.45 A.M.

*This paper must not be seen by any candidate.*

### INSTRUCTIONS TO THE TEACHER

1. Use the ten minutes preceding the beginning of the test to make yourself thoroughly familiar with the passage to be read.

2. When so instructed by the supervising officer, read to the candidates the "Instructions to Candidates" given below.

3. Then read the passage aloud to the candidates, speaking clearly and naturally, and taking not more than **four minutes** to the reading.

4. After this reading inform the candidates that they may now turn over the printed question papers, and that they will have three minutes in which to study the questions. Remind the candidates that they may make notes during this interval of three minutes, but only on the sheets provided for the answers. You yourself will not be allowed to see the questions which are to be answered by the candidates.

5. When so instructed by the supervising officer, read the passage a second time, in exactly the same manner as on the first occasion and taking the same amount of time.

6. Remind the candidates that the questions are to be answered in English.

## INSTRUCTIONS TO CANDIDATES

1. Listen carefully to the following passage with a view to answering questions on its content.
2. The questions are to be answered in English.
3. You are on no account to touch the printed question paper or to do any writing until you are told to do so.
4. The procedure will be as follows :—
  - (i) The passage will be read **twice**, with an interval of three minutes between the readings.
  - (ii) After the first reading you will be allowed to turn over the printed question paper and you will have three minutes in which to study the questions.
  - (iii) After the second reading you will write your answers on the sheet provided for this purpose.
5. All writing during the first and second readings, is **strictly forbidden**. Notes may be made during the interval between the readings, but only on the sheet provided for the answers.
6. You may not ask for the repetition of any word or phrase.

**Passage to be read to the candidates :—(Maximum time of reading—four minutes).**

Meine frühesten Kindheitserinnerungen waren des langen, engen Korridors, der im Vaterhaus von der Küche ins Wohnzimmer führte. Um diesem dunkeln Gang etwas Licht zu geben, hatte man in seiner Mitte ein Glasdach eingebaut. Ich brauchte mich also nicht zu fürchten, wenn ich den Weg von oder zu der Küche wagte. Und in der Tat war ich schon sehr oft ohne Unfall den Korridor entlang gegangen. Aber immer hatte ich das Gefühl, daß dort etwas Furchtbares geschehen könnte.

Da geschah es eines Tages, als ich mich gerade in der Mitte des Korridors befand, daß ein schrecklicher Lärm sich über mir erhob. Als ich angstvoll emporblickte, sah ich einen furchtbaren Schatten über das Glasdach gleiten. Vor Furcht zitternd, glaubte ich, daß mein Ende, wie auch das Ende der Welt, gekommen sei. Zu dieser Zeit lebten viele Leute in der Furcht, daß die Erde zu Ende kommen sollte, und in den Abendstunden hatte ich oft gehört, wie die Mägde von solchen Dingen leise sprachen. Ich schrie nun so laut wie ich nur konnte, und das ganze Haus kam gelaufen.

Als erste war unsere alte Köchin Grete zur Stelle, der ich mit vielen Tränen mein Abenteuer erzählte. Grete aber schien keineswegs meine Angst zu teilen. Im Gegenteil lachte sie laut aus : „Weine nicht, mein Kind, es ist nur unsere Katze, die über das Glasdach des Korridors gesprungen ist.“ Verwundert schaute ich mich dann um : durch das Glasdach kam heller Sonnenschein ; der Schatten war verschwunden. Nun beugte sich besorgt die Mutter zu mir nieder, beruhigte mich, und wischte mir die Tränen ab, die noch immer fielen. Als letzter kam der Großvater. Um mich zu ermuntern, gab er mir einige Bonbons, die süßer als zuvor schmeckten, denn ich sah nun, daß die Welt noch immer da stand und wie sie mir plötzlich schöner und fester schien als vorher. Endlich konnte ich herzlich mitlachen.

Später, als ich gewachsener Mann war und mich in irgend einer Schwierigkeit befand, pflegte ich mir zu sagen : „Es ist alles nur halb so schlimm ! Denk' an den Korridor im Vaterhaus ! Es ist nur die Katze, die über das Glasdach gesprungen ist.“

## GERMAN

LOWER GRADE—(PAPER (a) )

## AURAL COMPREHENSION TEST

Thursday, 17th March—9.15 A.M. to 9.45 A.M.

*Answers are to be written on the sheet provided for the purpose, on which are also to be written any notes made between the readings.*

## QUESTIONS

	Marks
1. Describe the corridor in the author's childhood home. What two rooms did it connect ?	2
2. (a) What was the boy's main feeling as he used to go along this corridor ?	
(b) Why should he have felt differently ?	1½
3. Describe the adventure which the boy had in the corridor.	2½
4. What explanation of his adventure suggested itself to him ? Why did this explanation occur to him ?	3½
5. Which three persons came to his rescue ? What did each do ?	4
6. When he was older, what use did he make of this incident ?	1½
	15

## GERMAN

LOWER GRADE—(PAPER (b) )

Thursday, 18th March—10.0 A.M. to 12.15 P.M.

*The value attached to each question is shown in brackets after the question.*

**N.B.—(1)** Begin the answer (or fair copy of an answer) to each question on a fresh page.

Marks will be deducted for bad spelling and bad punctuation, and for writing that is difficult to read.

**(2)** The use of German script is optional.

1. Translate carefully, with due attention to English form and expression:—

*The Beginning of the Holidays*

Am nächsten Tage wachte ich um fünf Uhr auf. Ich lief ans Fenster; die Straßen waren leer; auf den Dächern lag warmes Morgenlicht und in den Bäumen zwitscherten die Vögel.

Ich hatte sechs Wochen Ferien! Welch' ein Gedanke! Im Badezimmer pfiff ich lustig, während das Wasser auch sein fröhliches Lied sang. Dann zog ich mich schnell an.

Ich nahm meinen Rucksack, stopfte Hemden, Taschentücher, ein paar Bücher hinein und lief die Treppe hinunter. Noch waren die Straßen leer. Hier und da zeigte sich ein früh aufgestandener Arbeiter auf dem Rad, ein von der Nachtkälte durchfrorener Polizist, sonst niemand. In den einsamen Gassen hörte ich nur den Klang meiner Schritte und meines Stockes.

Bald hatte ich die letzten Häuser der Stadt erreicht und sah die Felder sich vor mir ausbreiten. Ich ging mit leichtem Fuß und leichtem Herzen die Landstraße hinunter. Es kamen Wagen, die zum Markt in die Stadt fuhren, und neben den Bauern saßen bellende Hunde. Die Sonne stieg; es wurde heiß. In einem schönen Dorf machte ich halt. Ich ging zu einem Bäcker und kaufte mir Brötchen und Kuchen.

„Wohin geht's, junger Herr?“

„Nach Fürstenau und immer weiter.“

„Und immer weiter — das ist ein gutes Stück Wegs. Na, wenn man junge Beine hat!“

Ich bezahlte, schüttelte ihm die Hand, lief an den Brunnen, trank das erfrischende Wasser, und marschierte tapfer weiter.

(30)

2. Read the passage below, then answer the questions which follow it.

N.B.—The passage is NOT to be translated.

*The Rhine*

Wie freuten wir uns, wenn der Lehrer die Landkarte herunterließ und sagte: „Jungens, das ist der Rhein!“

Er war ein Maler, unser Lehrer, und brachte uns viele Bilder mit, die er von dem Rhein und den Rheinstädten gezeichnet hatte. In jeder Stunde erzählte er von den Schiffen und den Segelbooten, die er so liebte. Wie er während der großen Ferien in seinem Segelboot den Rhein hinaufgefahren war, wie er alte Burgen und Städte, Berge und Häfen und die vielen fremden Menschen gesehen hatte, das alles beschrieb der Lehrer weiter. Auch spielte er oft auf seiner Geige und sang und lehrte uns die Lieder vom Rhein.

Und am Rhein stand unser Haus, denn mein Vater war  
 Kesselschmied in einer Fabrikstadt am Niederrhein. Von dem  
 Fenster meines Dachzimmers konnte ich stundenlang auf den  
 15 mächtigen Strom hinunterblicken, und so lernte ich alles kennen,  
 was auf und ab fuhr.

In den langen Sommerabenden, wenn ich nicht schlafen  
 konnte, lag ich ganz zufrieden auf dem Rücken, hörte dem  
 Rauschen des Wassers zu, und starrte die Zimmerdecke an. In  
 20 den vielen Linien, die mit der Zeit an der Zimmerdecke  
 erschienen waren, suchte ich die Wendungen des Rheins wieder,  
 wie sie uns der Lehrer auf der Landkarte gezeigt hatte. Und  
 in Gedanken ging ich dann mit dem Lehrer auf Reisen in  
 seinem Segelboot fort. Wir lagen auf den Schiffsplanken und  
 25 sahen den Mond hinter dem Loreleifelsen aufgehen. Bei  
 stürmigem Wetter banden wir unser Boot an eine Hafenummauer  
 und saßen bei Fischern, Schiffen und fahrendem Volk. Oh,  
 wie war es schön, so im Wind über den Rhein zu fliegen, das  
 Steuer in fester Hand! Ich sah mich schon als Schiffskapitän!  
 30 Wenn ich nicht schlafen konnte, wie wurde da mein Schlafzimmer  
 weit!

Als ich später in des Vaters Schmiede als Lehrling eintrat,  
 erzählten die Arbeiter manchmal von fremden Städten und von  
 der großen Welt. Sie waren alle als Maschinisten auf Schiffen  
 35 gefahren. Oft lachten sie in meine staunenden Augen und  
 sagten: „Jung“, was für ein Glück hast du, daß du als  
 Kesselschmiedssohn auf die Welt gekommen bist. So wirst du  
 wie wir in den großen Rheinstädten arbeiten und in die Welt  
 hinausfahren, anstatt den ganzen Tag in einem Büro zu sitzen.“  
 40 Und ehe ich meine Lehrjahre beendet hatte, da kannte ich schon  
 aus ihren Geschichten alle Städte den Rhein hinauf und hinab.  
 Und ihre Namen waren mir mehr als bloße Wörter.

### QUESTIONS

Marks

A.—Answer in English :—

1. Give details of the different ways in which the teacher made his  
 lessons on the Rhine interesting. 7

2. How did the position of the author's room help him to increase  
 his knowledge of the river? 2

3. „Wenn ich nicht schlafen konnte, wie wurde da mein Schlafzimmer weit!“ (lines 30, 31)

(a) Explain what the author means by this sentence. 1

(b) In these circumstances, what did the author do which kept him contented? (Give details.) 8

4. (a) Who said to the author that he was lucky to have been born a boilermaker's son?

(b) What reasons did they give for saying so? 3

5. „Und ihre Namen waren mir mehr als bloße Wörter.“ (line 42)

(a) What does the author mean by this statement?

(b) What justification had he for making it? 2

B.—Answer in German :—

6. Warum braucht ein Lehrer eine Landkarte? 2

7. Warum banden sie bei stürmigem Wetter ihr Boot an eine Hafenmauer? (lines 25, 26) 3

8. Warum waren die Augen des Lehrlings „staunend“? (line 35) 2

30

3. Write, in German, a continuous story based on the following summary :—

Your story must be written in the past tense and should be of approximately the same length as the translation of Question 1.

Jünger Knabe allein im Hause — es klingelt — alter Freund der Familie vor der Tür — Knabe erkennt ihn nicht — sagt — niemand zu Haus — der Freund will im Haus warten — Knabe hat Angst — schließt den Fremden im Wohnzimmer ein — Eltern kommen zurück — Erklärungen.

(25)

## GERMAN

### HIGHER GRADE—(FIRST PAPER)

Thursday, 17th March—10.0 A.M. to 12.15 P.M.

*The value attached to each question is shown in brackets after the question.*

N.B.—Begin the answer (or fair copy of an answer) to each question on a fresh page.

Marks will be deducted for bad spelling and bad punctuation, and for writing that is difficult to read.

1. Translate carefully, with due attention to English form and expression:—

*An Unusual Servant.*

(a)

Wir hatten große Wäsche im Haus, und unsere Mutter bat die Großmutter, uns ihr altes Dienstmädchen Regine auf ein paar Stunden zu leihen. Regine aber weigerte sich und wollte nichts von unserer Einladung wissen.

„Nein,“ sagte sie mit ruhiger Würde zur Großmutter, „Das tut mir leid, das kann ich heute nicht, ein andres Mal aber recht gern. Heute wird ein Theaterstück von meinem seligen Vater aufgeführt, und hoffentlich erlauben Sie also, gnädige Frau, daß ich ins Theater gehe.“ „Was ist denn das?“ fragte meine Großmutter und griff nach einem Theaterprogramm; da sah die Großmutter, daß ein seit Jahrzehnten vergessenes Stück von Raupach an jenem Tag gegeben werden sollte.

„Und Sie sind Raupachs Tochter!“ rief sie erstaunt aus.

Es stellte sich heraus, daß sie nicht nur Raupachs Tochter war; sie war auch mit Goethes Enkelkindern erzogen worden, denn ihre Mutter hatte mit der Goethe-Familie in enger Freundschaft gestanden. Später war Regine zum Ballett gekommen, und es war ihr da schlecht ergangen. Ein Tränenstrom verschlang ihre letzten Wörter.

Unsere Großmutter machte große Augen. Ich drückte Regine sanft auf einen Stuhl nieder. Damals verehrte ich Goethe mit allen Kräften meiner leidenschaftlichen, jungen Seele, denn ich hatte neulich zum allerersten Mal den „Faust“ gelesen, welcher einen unbeschreiblich tiefen Eindruck auf mich gemacht hatte.

„O Regine!“ sagte ich ehrfurchtsvoll. „Haben Sie irgend etwas von Goethe, was Sie mir zeigen können?“

Sie nickte.

Und so durfte ich hinauf in ihre Stube, die sie sonst vor allen Augen streng abschloß.

(30)

*Suspense.*

(b)

Im Osten begann der erste Schimmer des werdenden Septembertages zu erscheinen. Höher und höher zog das Licht. Stern um Stern verschwand. Tief im Tal hoben sich allmählich die schweren Nebel. Nun erreichte das Frührot des

Morgens den höchsten Gipfel der Berge. Ihm zu Füßen saß regungslos ein junger Jäger. Sein mageres, bartloses Gesicht war gebräunt, doch blaß, mit schmalen, trockenen Lippen; sein rötlich blondes Haar ließ sich unter dem dunkelgrünen Hut sehen. Er rührte sich nicht. Nur in seinen Augen war Leben. Das waren große, dunkle Augen, in denen ein heißes, unruhiges Feuer brannte. Die knabenhaften Wangen und das runde, sanfte Kinn bildeten einen seltsamen Widerspruch zu dem furchtlosen Blick dieser Augen, die dem Gesicht einen kraftvollen Ausdruck gaben.

Immer höher stieg der Tag. Der Jüngling saß noch immer unbeweglich. Seine Augen sahen die Schönheit des Morgens nicht. Wohl glitten sie ruhelos umher. Aber das waren nicht Blicke eines Mannes, der sehen wollte — es waren Blicke eines Mannes, der gespannt lauschte.

Nun kam ihm ein tiefer Atemzug aus der Brust. Langsam richtete er sich auf und wollte gehen. Aber da stand er wie zu Stein geworden — auf dem ihm gegenüberliegenden Berg hatte ein Schuß geknallt.

(25)

2. Carefully read the poem given below, then answer the questions which follow it.

N.B.—The poem is NOT to be translated.

*Der gelähmte Kranich*

- Der Herbst entlaubte schon den bunten Wald  
 Und streut' aus kalter Luft Frost auf die Flur :  
 Als an dem Strand ein Heer von Kranichen  
 Zusammenkam, um in ein freundlich Land  
 5 Jenseit des Meers zu ziehn. Ein Kranich, den  
 Des Jägers Pfeil am Fuß getroffen, saß  
 Allein, betrübt und stumm, vermehrte nicht  
 Das wilde Lustgeschrei der anderen,  
 Und war der laute Spott<sup>(1)</sup> der frohen Schar.
- 10 „Ich bin durch meine Schuld nicht lahm,“ dacht' er,  
 In sich gekehrt ; „ich half so viel als ihr  
 Zum Wohl von unserm Staat. Mich trifft mit Recht  
 Spott<sup>(1)</sup> und Verachtung nicht. Nur ach ! wie wird's

- Mir auf der Reif' ergehn ! Mir, dem der Schmerz  
 15 Mut, wie auch Kräfte, raubt zum weiten Flug !  
 Ich Unglückseliger ! Das Wasser wird  
 Bald mein gewisses Grab. Warum erschöß  
 Der Grausame mich nicht ? " — Indessen weht  
 Ein günst'ger Wind vom Land ins Meer. Die Schar  
 20 Beginnt, geordnet, jekt die Reif', und eilt  
 Mit schnellen Flügeln fort und schreit vor Lust.  
 Der Kranke nur blieb weit zurück, und ruht'  
 Auf Lotos-Blättern oft, womit die See  
 Bestreuet war, und seufzt' vor Gram und Schmerz.  
 25 Nach vielem Ruh'n sah er das bessere Land,  
 Den güt'gern Himmel, der ihn plötzlich heilt.  
 Die Vorsicht<sup>(2)</sup> leitet' ihn beglückt dahin ;  
 Und vielen Spöttern ward das Meer zum Grab.  
 Ihr, die die schwere Hand des Unglücks drückt,  
 30 Ihr Ehrlichen, die ihr, mit Leid erfüllt,  
 Das Leben oft verwünscht, habt keine Angst  
 Und wagt die Reise durch das Leben nur :  
 Jenseit des Ufers gibt's ein besser Land.

(1) der Spott — the laughing-stock, mockery.

(2) die Vorsicht — Providence.

### QUESTIONS

Marks

#### A.—Answer in English :—

1. State as exactly as you can at what time of the year this incident takes place. Give your reasons.

3

2. (a) „ Allein, betrübt, und stumm " (line 7).

Show the force of each of these adjectives as they apply to the crane, and describe the circumstances which made them appropriate.

7

(b) Why does the crane feel that he is being dealt with unjustly ? What does he wish had happened to him ?

2½

3. What makes the cranes decide to leave ?

Describe their departure.

2½

4. How does the crane fare on the journey ? (Give details.)

3

5. Explain the moral which the poet draws from this incident, bringing out the points of comparison with the story.

5

B.—Answer in German :—

Marks

6. Warum kamen die Kraniche an dem Strand  
zusammen? (line 3) 2
7. Warum nennt man das Land „freundlich“? (line 4) 2
8. Was bedeutet die Zeile:  
„Und vielen Spöttern ward das Meer zum  
Grab“? (line 28) 3

30

## GERMAN

HIGHER GRADE—(SECOND PAPER (a) )

## AURAL COMPREHENSION TEST

Thursday, 17th March—1.30 P.M. to 2.0 P.M.

*This paper must not be seen by any candidate.*

## INSTRUCTIONS TO THE TEACHER

1. Use the ten minutes preceding the beginning of the test to make yourself thoroughly familiar with the passage to be read.
2. (a) When so instructed by the supervising officer, read to the candidates the “Instructions to Candidates” given below.  
(b) Write on the blackboard the title of the passage to be read, i.e., “The Crevasse.”
3. Then read the passage aloud to the candidates, speaking clearly and naturally, and taking not more than **four minutes** to the reading.
4. After this reading inform the candidates that they may now turn over the printed question papers, and that they will have three minutes in which to study the questions. Remind the candidates that they may make notes during this interval of three minutes, but only on the sheets provided for the answers. You yourself will not be allowed to see the questions which are to be answered by the candidates.
5. When so instructed by the supervising officer, read the passage a second time, in exactly the same manner as on the first occasion and taking the same amount of time.
6. Remind the candidates that the questions are to be answered in English.

## INSTRUCTIONS TO CANDIDATES

1. Listen carefully to the following passage with a view to answering questions on its content.
2. The questions are to be answered in English.

3. You are on no account to touch the printed question paper or to do any writing until you are told to do so.

4. The procedure will be as follows :—

- (i) The passage will be read **twice**, with an interval of three minutes between the readings.
- (ii) After the first reading you will be allowed to turn over the printed question paper and you will have three minutes in which to study the questions.
- (iii) After the second reading you will write your answers on the sheet provided for this purpose.

5. All writing during the first and second readings is **strictly forbidden**. Notes may be made during the interval between the readings, but only on the sheet provided for the answers.

6. You may not ask for the repetition of any word or phrase.

7. I am going to write on the blackboard the title of the passage, which is, "The Crevasse."

**Passage to be read to the candidates. (Maximum time of reading—four minutes.)**

### "The Crevasse"

Einst machte eine Gesellschaft junger Studenten eine Reise in die südlichen Gebirge ihres Vaterlandes und nahm einen alten Bergführer mit. Als dieser einmal stillestand, um ihnen den Weg über einen Gletscher zu zeigen, bemerkten sie eine Träne in seinen Augen. Sie fragten ihn nach der Ursache, und er sagte, daß es die Träne eines dankbaren Herzens sei.

Auf diesen Bergen, erklärte der alte Mann, gingen zwei Kameraden und ich einst auf die Jagd. Der Gletscher war mit frischem Schnee bedeckt und plötzlich sank der Schnee unter meinen Füßen ein. Schon war ich tief in den Eisschlund gesunken, als ich die Arme und die Beine so weit als möglich ausbreitete und mich dadurch an den beiden Eiswänden festhielt, so daß ich noch über dem Eiswasser schwebte. Auf meinen Jägerruf, der zeigte, daß ich noch lebte, versprachen mir meine Kameraden alles zu meiner Rettung zu wagen. Sie liefen nun einige Meilen zu der nächsten Hütte zurück, während ich, auf meine ausgebreiteten Arme und Beine an die Felswände gestützt, zwischen Furcht und Hoffnung über dem Wasser schwebte. Ich sank aber immer tiefer; schon war ich bis an die Kniee in den Eisstrom gesunken, war vor Kälte fast erstarrt und erwartete nichts anderes als den Tod.

Nach einigen Stunden hörte ich meine Kameraden mir zurufen. Auf meine Antwort ließen sie mir ein Seil herunter, das sie aus einer in lange Streifen geschnittenen Bettdecke zusammengeknötet hatten. Mit vieler Mühe band ich es mir endlich um den Leib. Nun zogen sie mich mit vereinten Kräften so weit aus dem Eisschlund, daß sie mich beinahe mit den Händen erreichen konnten; aber plötzlich zerriß das Seil, und ich, mit einem Teil des Seiles um den Leib, glitt ebenso tief als vorher hinunter. Jetzt war die Not noch größer, nicht nur weil das Seil um so viel kürzer geworden war, sondern auch weil ich bei diesem zweiten Fall einen Arm gebrochen hatte.

Dennoch entfiel weder mir noch meinen Freunden der Mut. Sie schnitten die Streifen noch einmal entzwei und verlängerten so das Rettungsseil; dann warfen sie es mir zum zweiten Mal herunter und mit diesem noch schwächeren Seile gelang es ihnen, mich aus der Todesgefahr zu retten.

## GERMAN

HIGHER GRADE—(SECOND PAPER (a) )

## AURAL COMPREHENSION TEST

Thursday, 17th March—1.30 P.M. to 2.0 P.M.

*Answers are to be written on the sheet provided for the purpose, on which are also to be written any notes made between the readings.*

## QUESTIONS

Marks

- |  |    |
|--|----|
| 1. Who tells this story and to whom does he tell it ?<br>Explain in detail how the story came to be told.                                      | 3½ |
| 2. Describe the accident that befell the narrator and the circumstances which led up to it.<br>How far was the narrator able to help himself ? | 3½ |
| 3. How did his friends know he was alive ? What did they say to encourage him ?  | 1  |
| 4. What dangers did he face ? What were his thoughts as he waited ?  | 2  |
| 5. What steps did his companions take to rescue him ?  | 2  |
| 6. How far was their first attempt at rescuing him successful ?<br>In what ways were his chances of being saved lessened ?                     | 2  |
| 7. In what respect was the success of their second attempt surprising ?  | 1  |
|  | 15 |

## GERMAN

HIGHER GRADE—(SECOND PAPER (b) )

Thursday, 17th March—2.15 P.M. to 4.0 P.M.

*The value attached to each question is shown in brackets after the question.*

N.B.—(1) Begin the answer (or fair copy of an answer) to each question on a fresh page.

Marks will be deducted for bad spelling and bad punctuation, and for writing that is difficult to read.

(2) The use of German script is optional.

## 1. Translate into German :—

Marks

*In the bad old days*

“Peter,” said the old dominie, rapping repeatedly on the desk with his long wooden stick, “you’re a dunderhead.” “Yes, sir,” answered Peter sadly and raised a large hand to rub his head.

He was sitting with six others, who were all younger than he, at a long desk in the front row of the class. It was a narrow room with a high ceiling and with two long windows behind the pupils. It smelt of old books and of chalk and of imprisoned<sup>(1)</sup> boys. There were about thirty in the class. Since the day he came to school seven years ago, Peter had sat in the front seat and the reason was not hard to guess.

“I cannot understand you,” went on the old man. “How is it possible that two boys as dissimilar as you and your brother belong to the same family? You’ve grown tall and broad, Peter, but you’ve forgotten to grow clever.”

“That is true, sir,” said Peter seriously.

The teacher sighed.

“Don’t you want to go to the university like your brother? When he goes off next year to be taught in a secondary school, where will you be going?”

“To sea, with my father and grandfather, sir.”

“So you’re going to be a fisherman? Have you no desire to climb higher than that?”

“There’s nothing higher, sir,” said Peter.

(1) to imprison—*einſperren*

(50)

2. Write, in German, an essay on **one** of the following subjects.

**N.B.**—Your essay should not be shorter than the translation of question 1.

(a) Die Familie zieht in ein neues Haus ein.

(b) Eine abenteuerliche Autofahrt.

(25)

## SPANISH

LOWER GRADE—(PAPER (a) )

**AURAL COMPREHENSION TEST**

Tuesday, 22nd March—9.15 A.M. to 9.45 A.M.

*This paper must not be seen by any candidate.*

### INSTRUCTIONS TO THE TEACHER

1. Use the ten minutes preceding the beginning of the test to make yourself thoroughly familiar with the passage to be read.

2. When so instructed by the supervising officer, read to the candidates the "Instructions to Candidates" given below.

3. Then read the passage aloud to the candidates, speaking clearly and naturally, and taking not more than **four minutes** to the reading.

4. After this reading inform the candidates that they may now turn over the printed question papers, and that they will have three minutes in which to study the questions. Remind the candidates that they may make notes during this interval of three minutes, but only on the sheets provided for the answers. You yourself will not be allowed to see the questions which are to be answered by the candidates.

5. When so instructed by the supervising officer, read the passage a second time, in exactly the same manner as on the first occasion and taking the same amount of time.

6. Remind the candidates that the questions are to be answered in English.

### INSTRUCTIONS TO CANDIDATES

1. Listen carefully to the following passage with a view to answering questions on its content.

2. The questions are to be answered in English.

3. You are on no account to touch the printed question paper or to do any writing until you are told to do so.

4. The procedure will be as follows :—

(i) The passage will be read **twice**, with an interval of three minutes between the readings.

(ii) After the first reading you will be allowed to turn over the printed question paper and you will have three minutes in which to study the questions.

(iii) After the second reading you will write your answers on the sheet provided for this purpose.

5. All writing during the first and second readings is **strictly forbidden**. Notes may be made during the interval between the readings, but only on the sheet provided for the answers.

6. You may not ask for the repetition of any word or phrase.

**Passage to be read to the candidates :** Maximum time of reading—four minutes.

Por dificultades en el último momento para tomar billetes, llegué a Barcelona a medianoche, en un tren distinto del que había anunciado a mis tías, y no me esperaba nadie. Era la primera vez que viajaba sola, pero no

estaba asustada ; por el contrario me parecía una aventura excitante aquella libertad en la noche. Miré con una sonrisa de gran sorpresa la gran Estación del Norte, y los trenes echando humo, el gran rumor y las luces, me llenaban de maravilla. En este espectáculo hallaba el encanto de haber llegado por fin a una ciudad grande, de la que había soñado muchos años en mi aldea de provincia. Comencé a seguir la masa humana que, cargada de maletas, marchaba hacia la salida de la estación. Mi equipaje era un maletón muy pesado porque estaba casi lleno de libros, y lo llevaba yo misma con toda la fuerza de mi juventud. Debía parecer una figura extraña con mi aspecto risueño y mi viejo abrigo.

Fuera de la estación, uno de esos viejos coches de caballos se detuvo delante de mí, y lo tomé en seguida, causando la desesperación de otro viajero que corría detrás de él, gritando y agitando el sombrero. Llegada a la casa, gran edificio de muchos pisos, comencé a subir muy despacio la escalera. Ante la puerta de mis tías, sentí un súbito temor de despertar a aquellas personas que antes nunca había encontrado. Después de larga hesitación, di una tímida llamada a la que nadie contestó. Otra vez llamé. Nadie. Los ojos ya llenos de lágrimas de decepción, me acosté lo mejor que pude en el suelo, la cabeza en mi maletón. Allí me hallaron mis tías al salir buscar el pan a las seis de la mañana.

## SPANISH

LOWER GRADE—(PAPER (a) )

### AURAL COMPREHENSION TEST

Tuesday, 22nd March—9.15 A.M. to 9.45 A.M.

*Answers are to be written on the sheet provided for the purpose, on which are also to be written any notes made between the readings.*

### QUESTIONS

Marks

- |  |    |
|--|----|
| 1. Why were the girl's relatives not at the station to meet her ?  | 1  |
| 2. What were her feelings about the journey ? How might she have felt about it and for what reasons ?              | 2½ |
| 3. From where had she come ? What features of the station pleased her especially ?                                 | 2  |
| 4. Describe the girl's appearance.   | 2  |
| 5. What advantage did she secure over another traveller outside the station ? How did this other traveller react ? | 2½ |
| 6. (a) How did she spend her first night in Barcelona ?  |    |
| (b) How did she come to spend it in this way ?   | 4  |
| 7. When did her relatives find her ? What were they doing then ?   | 1  |

15

## SPANISH

## LOWER GRADE—(PAPER (b) )

Tuesday, 22nd March—10.0 A.M. to 12.15 P.M.

*The value attached to each question is shown in brackets after the question.***N.B.**—Begin the answer (or fair copy of an answer) to each question on a fresh page.**Marks will be deducted for bad spelling and bad punctuation, and for writing that is difficult to read.**

1. Translate carefully, with due regard to English form and expression :—

*An early leavetaking*

Llegó el día en que me puse arriero,<sup>(1)</sup> y muy antes de que viniese el alba, ya tenía yo puestas en el camino las mulas que en este tiempo había en el establo, cada una de ellas con sus ocho cajas y dispuesta a andar las cuatro leguas que había desde mi aldea hasta Málaga.

Era aquella salida el primer vistazo que yo iba a dar al mundo, la primera vez que iba a mirar el panorama de todo lo que había de espléndido y vario, y mi corazón palpitaba como una campana por la emoción de tantas maravillas. Acostumbrado a no separarme de mi aldea, a pasar los años en sueños de aventuras, contemplando las orillas del río, y recibiendo en el alma todos los divinos misterios de la tierra, yo no sabía qué era el mundo, qué eran los hombres, qué eran una máquina, un teatro, un palacio, una inmensa ciudad. Pronto iba a abrirse la cortina para que cayeran mis ojos sobre tantos prodigios.

Batieron las bestias con las patas el suelo, me despedí de mi madre, que lloraba; de mi padre, que me daba consejos, de mis hermanos pequeños, que me decían con voces suplicantes :

— ¿ Qué me vas a traer ?

— ¿ Y a mí ?

— A mí, dulces.

— A mí, un sombrero.

— A mí, una guitarra.

Todos estos encargos me hacían los pequeñuelos, y partí.

(30)

<sup>(1)</sup> arriero = muleteer

2. Read the passage below, then answer the questions which follow it.

**N.B.**—The passage is NOT to be translated.*A rolling stone*

Pablo el Vagabundo era audaz, irónico, perezoso, burlón. La ligereza y el olvido constituían la base de su carácter : no daba importancia a nada, se olvidaba de todo. Había malgastado casi todo su dinero en sus diez felices años de correrías por América en varios empleos, trabajando de 5 labrador, de policía, y de negociante ; aquí vendiendo carne, allá comerciando en vinos. Estuvo muchas veces a punto de hacer fortuna, lo que no consiguió por indiferencia. Era de esos hombres que se dejan llevar por los incidentes de la vida sin protestar nunca.

- No es que le asustaba el trabajo físico. Su pereza era más bien mental.
- 10 Le bastaba mirar el agua corriente, contemplar una nube o una estrella, para olvidar el proyecto más importante de su vida. El año pasado se había encontrado en una estancia del Uruguay, y como Pablo era agradable en su conducta y no muy desagradable en su aspecto, el dueño de la estancia le ofreció la mano de su hija, una muchacha bastante fea. Pablo, a quien no
- 15 le parecía mal la vida salvaje de la estancia, aceptó, y ya estaba para casarse cuando sintió la nostalgia de su aldea natal, del olor a hierba de sus montes, del paisaje brumoso de la tierra vasca. Como en su temperamento no entraban las explicaciones bruscas, una mañana, advirtió a los padres de su futura que iba a ir a Montevideo a comprar el regalo de boda; montó a caballo, luego
- 20 en un tren; llegó a la capital, se embarcó en un transatlántico, y después de saludar cariñosamente a la tierra de América, se volvió a España.

- Llegó a su pueblo después de diez años de ausencia; un pueblecito solitario en las montañas del País Vasco, fué a ver a su abuela, quien le invitó a instalarse con ella en su casa, a causa de sentirse solitaria, haciéndole
- 25 prometer nunca viajar más. Cuando oyeron los vecinos las nuevas de que no sólo no había hecho dinero en América, sino que lo había perdido, todo el mundo recordó que antes de salir de la aldea, ya tenía fama de perezoso y de frívolo. Él no se preocupaba absolutamente nada de lo que pudieran decir; pasaba las tardes durmiendo en la huerta, no buscaba empleo alguno, y se
- 30 divertía construyendo una canoa para andar por el río vecino, todas cosas que al pueblo entero indignaban.

### Questions

#### A.—Answer in English :—

Marks

1. (a) Describe Pablo's character in detail.
- (b) In what ways did the two main defects in his character account for his lack of success? 6
2. (a) How long had he been away from his native village?
- (b) What jobs had he in America? 3½
3. (a) Why did he nearly settle in Uruguay?
- (b) How did he explain his departure? Why did he not give the real reason? 3
4. (a) What were the stages of his journey home?
- (b) Describe the position of his village. 3½
5. What promise was he obliged to make on his return? Who made him make it, and why? 2
6. (a) What reminded the villagers of their earlier opinion of Pablo?
- (b) In what ways did Pablo after his return confirm this opinion?
- (c) How did Pablo and the villagers regard each other? 4

## B.—Answer in Spanish :—

Marks

7. ¿Por cuáles razones se le daba a Pablo el nombre de Pablo el Vagabundo ? 2
8. Explique la significación de la frase “ sintió la nostalgia de su aldea natal ” (line 16).  $2\frac{1}{2}$
9. ¿Por qué tuvo que embarcarse Pablo ? (line 20).  $1\frac{1}{2}$
10. ¿Por qué saludó cariñosamente a la tierra de América ? (line 21). 2

(30)

3. Write, in Spanish, a continuous story based on the following summary.

Your story should be written in the past tenses and should be of approximately the same length as your answer to Question 1.

Dos hermanos escoceses van a visitar a su tío en Inglaterra—se duermen en el tren—pasan de estación—llegan a Londres sin dinero—buscan a amigos de sus padres sin hallarlos—al fin un policía les presta bastante dinero para sacar billetes—llegan a su destinación con muchas horas de retraso. (25)

## SPANISH

## HIGHER GRADE—(FIRST PAPER)

Tuesday, 22nd March—10.0 A.M. to 12.15 P.M.

*The value attached to each question is shown in brackets after the question.*

N.B.—Begin the answer (or fair copy of an answer) to each question on a fresh page.

Marks will be deducted for bad spelling and bad punctuation, and for writing that is difficult to read.

1. Translate carefully, with due regard to English form and expression :—

“A stroll in Madrid”

María y sus sobrinas conocían todos los grandes y los pequeños encantos del paseo de Rosales. Entre los grandes podía considerarse como el mayor la vista de la sierra de Guadarrama, azul en las mañanas de invierno, gris las tardes de sol y violácea al anochecer. El palacio real tenía también perspectivas admirables, con sus colinas cubiertas de pinos. En otoño, las arboledas de esta posesión del rey presentaban una colección de colores espléndidos, desde el amarillo ardiente y el rojo cobrizo hasta el verde oscuro de los laureles. El Manzanares, después de las lluvias otoñales, tomaba apariencias de un río verdadero, y se le veía brillar bajo los puentes.

Los pequeños encantos del paseo consistían en contemplar los estanques bordeados de cipreses, y en seguir, con la mirada, los rebaños de cabras diseminados por los campos, en busca de la hierba corta nacida entre las piedras. Y aun con éstos no se acababan los atractivos del paseo, pues quedaba todavía el oír las bandas militares instaladas aquí y allá, y el ver los trenes que se alejaban echando humo blanco que flotaba en el aire como una nubecilla. En algunas ocasiones, las calles se llenaban de gente, y en los días de fiesta, de santos del rey o de la reina, había para los chicos el espectáculo sensacional de ver disparar las salvas de artillería.

(30)

2. Read carefully the poem below, then answer the questions which follow it.

**N.B.—The poem is NOT to be translated.**

*"A poet's imagination"*

- Un ruido de remos pacífico y vago  
de barca que flota de noche en un lago,  
inspira al poeta que oye, sin ver la barca,  
la base de un cuento : leyenda ilusoria
- 5 que inventa él que escucha. Tal vez la historia  
de un cautivo que aguarda a su salvador valiente.  
El poeta cree sentir en el aire  
una voz que desaparece lejana, vibrando con lento  
murmullo la orilla del lago y de su isla ;
- 10 y cree mirar, a los reflejos del agua que brilla,  
remar a lo lejos la barquilla,  
y cree ver la forma de la torre  
entre los árboles grandes de la isla,  
y cree ver al cautivo que escapa del castillo,
- 15 que cruza el desierto sendero del huerto,  
y llegando a la muralla, cierra silenciosa  
la puerta, y canta a la otra orilla  
la palabra secreta, puesta por su libertador  
en el refrán de su canción, señal antes convenida
- 20 para asegurar su encuentro nocturno y secreto.
- Y el son de los remos, el único germen  
del cuento, en que hacían tan lindo papel  
la barca que flotaba en las aguas que duermen,  
el canto, el castillo, el salvador, el cautivo . . .
- 25 ahora comprendo que fué alguna hoja  
que en el agua tranquila cayó de un laurel ;  
y en ella él que oía forjó aquella historia  
vaga, fugaz, transitoria.  
Y así es la vida : una hoja caída
- 30 en el agua del tiempo, que flota dos momentos.  
Y si no hay un poeta que la mira,  
y mirando interpreta  
no hay más que la hoja. ¿ Hay más ?  
Detrás de la hoja hay el árbol ; hay sus raíces ;
- 35 hay la química secreta de la tierra, laboratorio  
calentado por el sol.  
! Detrás de la hoja todo el firmamento trabaja !

## Questions

## A.—Answer in English :—

Marks

1. In the first part of the poem the poet describes an incident imagined by him. Where and when does the incident take place? 1
2. (a) Who are the two characters in the incident and where are they when the story begins?  
(b) Give details of the pre-arranged signal which they make to each other. 6
3. Describe the scene of the incident. 3½
4. What was in fact the happening that stirred the poet's imagination? What is needed to give significance to such a happening? 2
5. "Y así es la vida" (line 29).  
Explain what the poet means by this phrase and why he is justified in using it. 3
6. (a) What does the poet see behind the insignificant happening?  
(b) To what does the poet compare the earth? Show how he develops the comparison. 5½

## B.—Answer in Spanish :—

7. ¿Qué es una leyenda? (line 4). ¿Por qué aplica el poeta esta palabra a su historia? 3
8. ¿Por qué llama el poeta "valiente" al salvador? (line 6) 3
9. ¿Por qué tenía que ser "nocturno y secreto" el encuentro? (line 20) 3

(30)

3. Translate carefully, with due regard to English form and expression :—

*"The two ringleaders"*

La escuela se hallaba dividida en dos bandos, que seguían a los dos más fuertes. Uno de los cabecillas, Roque, era hijo de un herrero. Narigudo, de frente baja y dientes menudos, todo daba en él un aire obstinado pero simpático. Se había escapado de casa una vez y fué devuelto por la Guardia Civil, que le encontró cerca de la frontera portuguesa. Esto le dió cierto prestigio entre los compañeros. Nadaba muy bien y era el único de la escuela que un día de fiesta se había acercado en la plaza al toro atado incitándole con las manos.

El otro era hijo de un policía llamado el Zamorano. En lo más duro de la lucha, si la cosa le iba mal, solía invocar a su padre. "Yo se lo digo a mi padre, Vds. verán". Y la pendencia cesaba. El padre era alto y bastante feo. Tenía en el rostro una herida que le corría por toda la barba. Su mirada era dura e inexpresiva, y terminaban los brazos largos en manos gigantescas. A casi todos los chicos de la escuela, de muy niños, sus madres los habían dormido así: "Si no estás quieto y cierras de una vez los ojos, tendré que llamar al Zamorano."

(25)

## SPANISH

HIGHER GRADE—(SECOND PAPER (a) )

**AURAL COMPREHENSION TEST**

Tuesday, 22nd March—1.30 P.M. to 2.0 P.M.

*This paper must not be seen by any candidate.***INSTRUCTIONS TO THE TEACHER**

1. Use the ten minutes preceding the beginning of the test to make yourself thoroughly familiar with the passage to be read.
2. When so instructed by the supervising officer, read to the candidates the "Instructions to Candidates" given below.
3. Then read the passage aloud to the candidates, speaking clearly and naturally, and taking not more than **four minutes** to the reading.
4. After this reading inform the candidates that they may now turn over the printed question papers, and that they will have three minutes in which to study the questions. Remind the candidates that they may make notes during this interval of three minutes, but only on the sheets provided for the answers. You yourself will not be allowed to see the questions which are to be answered by the candidates.
5. When so instructed by the supervising officer, read the passage a second time, in exactly the same manner as on the first occasion and taking the same amount of time.
6. Remind the candidates that the questions are to be answered in English.

**INSTRUCTIONS TO CANDIDATES**

1. Listen carefully to the following passage with a view to answering questions on its content.
2. The questions are to be answered in English.
3. You are on no account to touch the printed question paper or to do any writing until you are told to do so.
4. The procedure will be as follows :—
  - (i) The passage will be read **twice**, with an interval of three minutes between the readings.
  - (ii) After the first reading you will be allowed to turn over the printed question paper and you will have three minutes in which to study the questions.
  - (iii) After the second reading you will write your answers on the sheet provided for this purpose.
5. All writing during the first and second readings is **strictly forbidden**. Notes may be made during the interval between the readings, but only on the sheet provided for the answers.
6. You may not ask for the repetition of any word or phrase.

**Passage to be read to the candidates** (Maximum time of reading—four minutes) :—

Mi tía Juana tenía una tienda donde vendía huevos. Era una señora vieja de tipo extraño y raro. En los ojos había con frecuencia una expresión de ironía. Yo encontraba a mi tía Juana interesante y llena de humor. Por esta época de su vejez, era como una aparición en la casa. Se la oía andar por las habitaciones a las dos o a las tres de la mañana, envuelta en un chal verde, con su nariz de pájaro y su piel blanca y reluciente. Se la hubiera tomado por un espectro. Era una mujer que no pensaba en nada más sino en la comida, en los platos bien preparados, los huevos frescos, y el vino blanco. Por eso, una de las ceremonias de la casa era la selección de los huevos. Esta selección era, sobre todo, para escoger los mejores y más frescos para mi tía. Se examinaban los huevos por la noche, porque había entonces la luz eléctrica. Cuando faltaba la electricidad, usábamos una lámpara o una vela. Se ponía una caja grande de huevos encima de la mesa y los mirábamos uno a uno contra la luz. Los huevos más grandes, más claros, y más blancos eran para mi tía; los que venían después en importancia para mí; los otros para los criados, y los peores para los clientes. Por eso decía la verdad la etiqueta en la tienda, la que anunciaba a todo el mundo: "Huevos seleccionados". El cocer los huevos era otra ceremonia, y tenía también sus complicaciones. Cuatro minutos no más en el agua hirviendo, y le aseguro que si la criada por olvido los dejaba cuatro minutos y medio, la tía lo sabía al momento de abrir la cáscara del huevo.

### SPANISH

HIGHER GRADE—(SECOND PAPER (a) )

#### AURAL COMPREHENSION TEST

Tuesday, 22nd March—1.30 P.M. to 2.0 P.M.

*Answers are to be written on the sheet provided for the purpose, on which are also to be written any notes made between the readings.*

#### QUESTIONS

	Marks
1. (a) How did the aunt make a living ?	
(b) What opinion had the niece of her aunt ?	1½
2. What habit had the aunt that disturbed the household ? Describe in detail her appearance on these occasions.	4
3. What things mainly occupied the aunt's thoughts ?	2
4. (a) What household activity was the result of this preoccupation ?	
(b) What was the main purpose of this activity ? What were its other purposes ?	
(c) Describe the ceremony.	3½
5. What misleading practice did the aunt adopt in her business ?	2
6. What other household ceremony was of importance to the aunt ? What were the two essential points in it ? What sometimes went wrong ?	2

15

## SPANISH

HIGHER GRADE—(SECOND PAPER (b) )

Tuesday, 22nd March—2.15 P.M. to 4.0 P.M.

**N.B.**—Begin the answer (or fair copy of an answer) to each question on a fresh page.

Marks will be deducted for writing that is difficult to read.

*The value attached to each question is shown in brackets after the question.*

## 1. Translate into Spanish :—

I had always wanted to be a student, but I had not known how tired studying can make one. Often after a few lectures all I wanted was to get into bed, and sleep without dreaming, but there were many nights when I could not fall asleep, and I used to sit in a chair by the window, reading. One hot summer night, I thought that I would like a bathe, so I went quietly downstairs, and across the gardens to the swimming pool.<sup>(1)</sup> I swam about for nearly half an hour, and when I got back to my room, I slept so well that I did not waken in time for breakfast.

I made a habit of this midnight bathing, even in autumn and winter. The swimming pool was in a big building, with high windows, and often it was quite warm in there when a cold wind was blowing outside. One frosty night in January, with a brilliant moon, I stood on the high gallery in front of the windows, and prepared to dive<sup>(2)</sup> into the water. As I raised my arms to dive, an enormous cross appeared on the opposite wall. It startled me, but then I realised that it was only my shadow thrown by the moon. As I hesitated, I looked down. There was no water in the pool!

(1) swimming pool = la piscina.

(2) to dive = bucear.

(50)

2. Write, in Spanish, a composition on **one** of the following subjects:—

(a) El león que se escapa de la jaula en el jardín zoológico.

(b) Viaje en tranvía por un día de niebla espesa.

(25)

## GAELIC

LOWER GRADE—(PAPER (a) )

## AURAL COMPREHENSION TEST

Tuesday, 22nd March—9.15 A.M. to 9.45 A.M.

*This paper must not be seen by any candidate.*

## INSTRUCTIONS TO THE TEACHER

1. Use the ten minutes preceding the beginning of the test to make yourself thoroughly familiar with the passage to be read.

2. When so instructed by the supervising officer, read to the candidates the "Instructions to Candidates" given below.

3. Then read the passage aloud to the candidates, speaking clearly and naturally, and taking not more than **four minutes** to the reading.

4. After this reading inform the candidates that they may now turn over the printed question papers, and that they will have three minutes in which to study the questions. Remind the candidates that they may make notes during this interval of three minutes, but only on the sheets provided for the answers. You yourself will not be allowed to see the questions which are to be answered by the candidates.

5. When so instructed by the supervising officer, read the passage a second time, in exactly the same manner as on the first occasion and taking the same amount of time.

6. Remind the candidates that the questions are to be answered in English.

### INSTRUCTIONS TO CANDIDATES

1. Listen carefully to the following passage with a view to answering questions on its content.

2. The questions are to be answered in English.

3. You are on no account to touch the printed question paper or to do any writing until you are told to do so.

4. The procedure will be as follows :—

(i) The passage will be read **twice**, with an interval of three minutes between the readings.

(ii) After the first reading you will be allowed to turn over the printed question paper and you will have three minutes in which to study the questions.

(iii) After the second reading you will write your answers on the sheet provided for this purpose.

5. All writing during the first and second readings is **strictly forbidden**. Notes may be made during the interval between the readings, but only on the sheet provided for the answers.

6. You may not ask for the repetition of any word or phrase.

**Passage to be read to the candidates** (maximum time of reading—four minutes):—

An 1913 chaidh leabhar a chlà-bhualadh an Inbhir-nis a tha a' deanamh luaidh air diùlnach as an Eilean Sgitheanach mar fhear-iuil do 'n Phrionnsa Tearlach. Is fhiach ainm a chumail air chuimhne—Domhnall MacLeoid a rugadh an Galtrigil, taobh loch Dhunbheagain, diùlnach a dhleas càrn-cuimhne cho math ri Fionnghal Dhomhnallach.

Thachair do Dhomhnall a bhith an Inbhir-nis mu am a' bhlàir air tòir luchd mine, agus ged a bha a cheann-feadhna, MacLeoid Dhunbheagain, air taobh nan Hanobherianach, bha esan air taobh buidheann a' Phrionnsa.

Bha Murchadh a mhac, giullan aois chóig bliadhna deug, ann an àrd-sgoil Inbhir-nis, agus òg mar a bha e, theich e o 'n sgoil; chrioslaich e e féin le claidheamh is le biodaig, agus a mach ghabh e an aghaidh an airm dheirg cuide ri cach! Nach b' e an laochan e—mac mar an t-athair!

Cha d' amais Domhnall a bhith anns an tuasaid, ach tha e soirbh a thuigsinn a' mhoit a chaidh troimh a chré nuair a choinnich e ri Murchadh an Arasaig an déidh a' bhlàir. Bha e ag cur ghnòthuichean an òrdugh a chum am Prionnsa a theàrnadh. Is ann an coille bhig a thachair e ri Tearlach, a bha nis 'na fhògarrach bochd agus ag cruaidh-fheuchainn seòl air chor-eigin fhaotainn gu Innse Gall a ruigheachd, oir cha robh teàrnadh r' a fhaicinn air tìr-mór agus an t-arm dearg air a thòir.

Ars' am Prionnsa ri Domhnall, "Tha mi an teanntachd; thatar ag innse dhomh gur duine onorach thu; tha m' earbsa annad, agus tha mi 'gam thilgeil ort air son cobhair."

Fhuaradh bàta ochd-ràmhach le sgioba an uidheam. Bha coltas gailbheach air an iarmailt an oidhche Shathurna ud, agus bha oirthir Uibhist trì fichead mìle mara bho Arasaig. Chomhairlich Domhnall an oidhche a chur seachad far an robh iad; ach bha Tearlach misneachail thar tomhais agus chan fhanadh e ged rachadh e féin is an sgioba fo 'n doimhne. B' fheudar cur rithe agus Domhnall air an stiuir. Am measg nan lann cha d' fhuair gealtachd àite.

## Gaelic

Lower Grade—(Paper (a) )

### AURAL COMPREHENSION TEST

Tuesday, 22nd March—9.15 A.M. to 9.45 A.M.

*Answers are to be written on the sheet provided for the purpose, on which are also to be written any notes made between the readings.*

### QUESTIONS

- |   | <i>Marks</i> |
|---|--------------|
| 1. Who was the Prince's guide to the Western Isles?                                     | 2            |
| 2. Why should his name be remembered?   | 2            |
| 3. What was his purpose in visiting Inverness?  | 1            |
| 4. Which relative was he proud to meet later in Arisaig? Give the reason for his pride. | 3            |
| 5. What conversation passed between the Prince and his guide?                           | 2            |
| 6. Describe the boat employed in the escape to the Isles.                               | 1            |
| 7. Describe also the weather encountered.   | 1            |
| 8. What did the guide advise should be done?  | 1            |
| 9. What was decided upon?   | 2            |

## GAELIC

## LOWER GRADE—(PAPER (b) )

Tuesday, 22nd March—10.0 A.M. to 12.15 P.M.

**N.B.**—Begin the answer (or fair copy of an answer) to each question on a fresh page.

Marks will be deducted for bad spelling and bad punctuation, and for writing that is difficult to read.

*The value attached to each question is shown in brackets after the question.*

## 1. Translate into English :—

Is iomadh rud iongantach a tha an cois a' Chogaidh a th' ann. Maille ri iomadh rud eile tha so gu sònruichte, gun tug e a' ghealach air ais do mhuinntir nam bailtean-móra. Agus sin rud nach robh dad de dh' aithne aca air o chionn linn no dhà. Ach a nis o b' éiginn dhaibh an dubh-dhorchadas a bhith aca, nithear gairdeachas ris a' ghealaich nuair a thig i. Agus is e fìor rud annasach do mhuinntir nam bailtean-móra a tha an sin; gus an so fhéin cha mhothaicheadh iad gu robh a leithid de rud agus gealach ann ged bhiodh i air a coinneil. <sup>(1)</sup>

Is e bu chaireach ris an sin gu robh na bailtean-móra cha mhór cho soilleir air an oidhche is a bhà iad air an latha, gu h-àraidh bho thàinig an gas. Agus ged bha na sràidean agus cùiltean a' bhaile-mhóir air an deanamh soilleir le solus a' ghais, is ann a thàinig an t-soilleireachd da-rìreadh ri linn solus an dealain. Eadar sholuis nan sràidean agus nam bùthan agus gach solus eile a bh' ann, bha an oidhche anns a' bhaile-mhór cho soilleir ris mar gum b' e làr a' mheadhoin latha a bhiodh ann.

Ach a nis tha iad an crochadh ris a' ghealaich dìreach mar a tha muinntir na dùthcha, agus tha a' ghealach dhaibh mar a bha i òrdaichte air tùs, a' riaghladh na h-oidhche. Cha mhisde, ma-tà, muinntir a' bhaile-mhóir an stèilean a thogail suas ris a' ghealaich agus ris na reultan, agus aithne a chur air glòir a' chruthachaidh air an oidhche cho maith ri air an latha. Tha maisé agus glòir r' a fhaicinn ri solus na gealaich cho maith is a tha e r' a fhaicinn ri solus na gréine, ged tha e eadar-dhealaichte. (30)

<sup>(1)</sup> air a coinneil = shining brightly.

## 2. Read the poem below, then answer the questions which follow it :—

**N.B.**—The poem is NOT to be translated.

- Nach sàmhach maduinn chiuin an latha naoimh !  
 Tha fuaim an t-saoghail balbh. Cha chluinnear fòs  
 'S a' bhuaille luinneag, no an fhead air raon.  
 Tha 'n speal 'na sineadh anns an fheur fo dhrùchd,  
 5 Na blàthan maoth a' seargadh anns an stadh <sup>(1)</sup>  
 Ge b' ùrail ait iad anns a' ghaoith an dé.  
 Cluinnear an fhuaim as faoine,—eadhon srann  
 An t-seillein mhoich, is braona tlàth an drùchd,  
 Is mèilich chaorach, 's iad air uchd an t-sléibh.

- 10 Dhàsan tha mach air feadh nam bruachan àrd,  
Lon-dubh a' seinn na's binne, ar leis, o 'n ghleann ;  
An riabhag dhìrich i an diugh gu nèamh  
Le a feadan ceòlmhor. Tha an t-alltan féin  
Gu mór na's réidhe siubhal sios troimh 'n ghleann.
- 15 O 'n bhothan bheag ud as am faicear smùid  
Ag éirigh caol os cionn a' cheò, tha fuaim  
Nan salma milis—laoidhean naomha binn.  
Tha sìth os cionn a' bhaile bhig ud thall.  
An t-innean chlos <sup>(2)</sup> ; tha h-uile ni 'na thàmh.
- 20 Tha a' mhaigheach féin, ge fiamhach i, a' stad  
Le sùil 'na déidh, a' beachdachadh gun gheilt  
Air duine, a nàmhuid bhorb. Tha an gearran trom,  
Gun taod gun teadhair ag ionaltradh gu saor ;  
Air leud a dhroma, cur nan car le strì,
- 25 A chruidhean a' boillsgeadh os a chionn ri gréin.
- Fhuair am fear-ceirde glas an diugh a head,  
'S e falbh bho smùid a' bhaile mhóir gu tràth,  
Ri bruaich na h-aibhne dh' iarr e 'm fàile glan ;  
A' beachdachadh le taing an àird nan craobh,
- 30 'Nan duilleach uaine is anns na blàthaibh maoth  
Air cumhachd ghlòrmhor Dhé. 'S le sòlas ait  
Mar tha e breithneachadh gu stòld leis féin,  
Tha e fo dhòchas, (ge nach ann gun fhiamh)  
Gur sàbaid shiorruidh bhios fa-dheòidh air nèamh.

<sup>(1)</sup> stadh = swathe of cut hay.

<sup>(2)</sup> An t-innean chlos = the anvil is silent.

## QUESTIONS

Notes to Candidates.

(a) The answers to the following questions may be in either Gaelic or English except when otherwise indicated.

(b) Arabic numerals, within brackets, refer to lines.

	Marks
1. Which day of the week is described ? Write the name in Gaelic.	2
2. What are the indications given that out-door work has ceased ?	5
3. Name four different sounds that break the stillness.	4
4. What human sounds are heard ? Describe the place from which these sounds come.	3
5. Describe the two animals mentioned in lines 20 to 25.	4
6. Where does the tradesman from the city spend the day ? What thoughts and what hopes do his surroundings inspire in him ?	5
7. Suggest a suitable title for the poem.	1
8. Explain "luinneag" (3) and give an example of the type referred to.	2

Marks

9. Explain "blàthan maoth" (5). Give the names of any four with their English equivalents.

2

10. Write the genitive singular form of

'n bhothan bheag (15)

nan salma milis (17)

and the nominative singular of

an t-sléibh (9)

a dhroma (24).

2

30

3. Write, in Gaelic, a continuous story based on the following summary, and complete it in your own way. **The story should be about the same length as your answer to question 1.**

Lomadh nan caorach.

An sgioba a' falbh anns a' mhaduinn le an cuid chon—cròthadh nan caorach—a' deanamh bìdh do 'n sgioba—a' tional na clòimhe—an turus dhachaidh . . .

(25)

## Gaelic

HIGHER GRADE—(FIRST PAPER (a))

Tuesday, 22nd March—10.0 A.M. to 12 NOON.

N.B.—Begin the answer (or fair copy of an answer) to each question on a fresh page.

Marks will be deducted for bad spelling and bad punctuation, and for writing that is difficult to read.

*The value attached to each question is shown in brackets after the question.*

1. (a) Translate into idiomatic English :—

Do 'n neach a tha tùrail tha a theagasg féin fillte ann an tràthan na bliadhna, agus gu h-àraidh ann an cleachdaidhean nan ainmhidhean beaga do nach gabh daoine anns a' choitcheantas mòran umhail. Beachdaich cho saothreach is a tha iad an am an fhoghair ag càrnadh suas lòn is 'ga fhalach anns na tuill, no fo bhruachan, mu 'n tig fuachd is reothadh.

Seall air an t-seillean. Nach glic e a' trusadh meala am measg nam blàthan iurach fad an t-samhraidh—fìor shamhla air dìchioll? Chan eagal da 'na sheòmar geamhraidh is barrachd is na dh' fhoghnas da aige de mhill. Cha d'fhuair ar daoine glice a mach fhathast rùn dìomhair an aomaidh nàdurra a tha an gnè nan creutairean beaga gu bhith a' deanamh ullachaidh a chum iad féin a dhion o 'n acras.

Gabh beachd air an fheadraig—creutair cho bòidheach is a shuidh air meanglan craoibhe. Chan 'eil neach a ni faire oirre is i ag cluich is a' mireadh le a h-àl air là blàth grianach nach gabh tlachd dhi. Ach tha i cho sgaoimeach 'na gnè is nach 'eil e soirbh faighinn faisg oirre.

(25)

## 1. (b) Translate into idiomatic English :—

Mu am Bliadhna Thearlaich bha na Gàidheil gu ìre bhig 'nan gnàths mar na prìomh athraichean ; gach fine 'nan treubhan air leth, agus gach ceann-cinnidh mar rìgh a' riaghladh thar a luchd-leanmhuinn féin. Bha iad a' beathachadh, mar bu trice, air sealg agus fiadhach nam beann, tacar na fairge, blioched agus buannachd eile na spréidhe, maille ri beagan arain, oir cha robh am buntàta mu 'n am sin air sgoileadh feadh na Gàidhealtachd.

Bha iad ag cur seachad a' chuid bu mhotha de an ùine ri fearra-ghnìomhan fearail àbhachdail, a' togail chreach agus a' leantuinn na tòire. Air an aobhar sin bha iad air am foghlum, eadar shean agus og, ann an airm-chleas a' chlàidheimh is na sgéithe, ullamh gu dol sìos do 'n teughbhail, agus an ursannan-catha a leantuinn cho luath is a chluinneadh iad fuaim na cathghairm no a chitheadh iad an crann tàra. Mheal iad mar sin an nòs dùthchasach bho linntean euchdach an sinnsir gu latha Chuil-lodair, ach o 'n uair sin faodar a ràdh gu bheil “ na Gàidheil agus an cinn fo fhliodh ”.

(25)

## 2. Read the poem below, then answer the questions which follow it :—

**N.B.—The poem is NOT to be translated.**

- Ged a dh' fhàg thu ri port mi  
 Chan 'eil mi dheth socrach no slàn ;  
 'S chan e cùram an aiseig  
 A chum mi gun chadal, gun tàmh ;  
 5 Ach nach grunnaich mo chasan  
 Is nach d' fhoghlum mi 'n toiseach an snàmh,  
 Gus an ruiginn an talla  
 Far an tric am biodh caithream nam bàrd.
- A Thighearn Oig, tha mo rùn ort,  
 10 Criosd 'gad choimhead bho thuirling nan stuadh !  
 Ged a dh' fhàg thu ri port mi  
 Chan 'eil mi do d' chorp ann am fuath.  
 Bha mo chridhe 'ga thàladh  
 Nuair a chunnaic mi 'm bàta dol suas,  
 15 Fo a h-uidheam gu socrach,  
 Is mi guidhe dhuit fortain is buaidh.

- Ged a b' fhad' as an t-eilean  
 Chan fhaca mi gainne air bhur cùl ;  
 Gum faight' ann ad fhàrdaich  
 20 Fion dathte na Spàin' air na bùird ;  
 Aran cruithneachd geal, sòghar,  
 'Ga chàradh an òrdugh gu dlùth—  
 Sàr bhiadhannan gasda  
 Mar gun tàrladh tu 'n taice ri bùth.
- 25 Is a Thighearn Oig Chola,  
 'S tu m' eudail, is m' anam, 's mo rùn ;  
 Cuim' nach bi mi 'gad mholadh,  
 'S gum bu mhiann leat mu d' choinneamh luchd-ciuil ?  
 Bu tu 'n curaidh sàr ghasda,  
 30 Air mo laimh-sa gun sgapadh tu crùin.  
 B' i do chéile 'n seud ainmeil  
 Is a' bhean d' am bu toirbheartach cliù.

- 'S beag an t-iongnadh mór cheutachd  
 Bhith air ogha Shir Seumas o 'n tùr ;  
 35 I bhith furbhailteach, fialaidh,  
 Sin a b' fhasan di riamh is bu dù.  
 Fhuair i urram nan Leòdach,  
 Ann am misnich, am morchuis, 's an cliù,  
 Chaidh an naidheachd sin fad' ort  
 40 Aig gach aon a ghabh beachd air do ghnùis.

- A Dhomhnaill Mhic Eachuinn,  
 Gun guidhinn-sa leatsa deagh bhuaidh,  
 A mhic dalta mo sheanar,  
 A fhuair urram, 's tu ad leanabh, air sluagh.  
 45 Latha buadhach sin Lòchaidh,  
 'S e a b' urrainn an tòrachd a ruag  
 Le a luaidhe 's le lannaibh,  
 Gum biodh àireamh air cheannaibh gu uaigh.

### QUESTIONS

Notes to candidates.

(a) The answers to the following questions may be in either Gaelic or English, except when otherwise indicated.

(b) Arabic numerals within brackets, refer to lines.

*Marks*

1. Describe, from the context, the circumstances under which the poem was composed. Explain the phrase "ri port" (1). 4
2. What were the main regrets of the bardess? 3
3. Show that she bore the young laird no grudge. Give the equivalent in English of the wish expressed in line 10. 3
4. Describe the laird's home as depicted by the bardess. 3
5. Give reasons for her appreciation of
  - (a) the laird,
  - (b) his wife. 6
6. What special qualities are attributed to the latter? Comment on her ancestry. 3
7. Translate into English lines 41 to 48. Locate "Lòchaidh" (45) and explain the reference. 6
8. Give the exact meaning of "m' eudail" (26) and "bu dù" (36) and give a Gaelic synonym for each. 2

30

## GAELIC

HIGHER GRADE—(FIRST PAPER (b) )

**AURAL COMPREHENSION TEST**

Tuesday, 22nd March—12.15 P.M. to 12.45 P.M.

*This paper must not be seen by any candidate.***INSTRUCTIONS TO THE TEACHER**

1. Use the ten minutes preceding the beginning of the test to make yourself thoroughly familiar with the passage to be read.
2. When so instructed by the supervising officer, read to the candidates the "Instructions to Candidates" given below.
3. Then read the passage aloud to the candidates, speaking clearly and naturally, and taking not more than **four minutes** to the reading.
4. After this reading inform the candidates that they may now turn over the printed question papers, and that they will have three minutes in which to study the questions. Remind the candidates that they may make notes during this interval of three minutes, but only on the sheets provided for the answers. You yourself will not be allowed to see the questions which are to be answered by the candidates.
5. When so instructed by the supervising officer, read the passage a second time, in exactly the same manner as on the first occasion and taking the same amount of time.
6. Remind the candidates that the questions are to be answered in English.

**INSTRUCTIONS TO CANDIDATES**

1. Listen carefully to the following passage with a view to answering questions on its content.
2. The questions are to be answered in English.
3. You are on no account to touch the printed question paper or to do any writing until you are told to do so.
4. The procedure will be as follows :—
  - (i) The passage will be read **twice**, with an interval of three minutes between the readings.
  - (ii) After the first reading you will be allowed to turn over the printed question paper and you will have three minutes in which to study the questions.
  - (iii) After the second reading you will write your answers on the sheet provided for this purpose.
5. All writing during the first and second readings is **strictly forbidden**. Notes may be made during the interval between the readings, but only on the sheet provided for the answers.

6. You may not ask for the repetition of any word or phrase.

Passage to be read to the candidates (maximum time of reading—four minutes) :—

Bha sinn a nis aig beul na h-uaimhe. “Urram na h-uaisle do 'n choigreach” thubhairt Eachunn rium “gabh air t' adhart”. Chaidh sinn a steach fo dhìon, agus shuidh sinn air a' cheud chloich chothromaich a fhuair sinn. Cha robh mo chompanach ro dheònach air móran cainnte; bha e a' sgioblachadh a bhreacain an uair a ghrad thog e a cheann mar gum buaileadh peileir e. Thàinig a nuas oirnn anns a' cheart am sin ceòl tiamhaidh binn nach d' fhiosraich mi éisdeachd r' a leithid riàmh roimhe. Chan fhaodadh so gun mhór iongnadh a chur oirnn. Bha an oidhche dorcha; bha an t-àite ùdlaidh, uaigneach; bha sinn fada bho thigheadas dhaoine ann an coire fiadhaich.

Ghabh sinn suas am feadh a bha an ceòl a' sìor fhàs na b' àirde. Mu dheireadh thàinig leus soluis oirnn agus an uair a chaidh mi timcheall stùc creige chunnaic mi sealladh nach téid gu luath as m' aire. Bha lasair chridheil theine aig ceann shuas na h-uaimhe bho ghiuthas seacte a bha pailt mu 'n àite; agus 'na shuidhe aig an teine bha leth sheann duine; currac àrd, molach, air a cheann, anns an robh dos de dh' itean an fhìreoin, agus a chom uile air a chòmhachadh le biana fhiadh agus earb. Bha e ag cluich gu sùrdail air dà thruimb mhóir Abraich, agus an crochadh ri gach meur d' a làmhnan bha clag beag airgid a rinn fuaim anabarrach binn, agus o 'n do thàrmaich a' cho-sheirm a chuala sinn. “Thig air t' adhart” thubhairt mi gu sàmhach ri Eachunn. Dhlùthaich e gu sgàthach ri m' thaobh, agus air dha a' cheud phlathadh fhaicinn de 'n fhear-chiuil, thug e sìtheadh seachad orm, ag glaothaich a mach le aighear nach b' urrainn da a cheannsachadh, “Iain Mhóir nan Creag, an tusa tha 'n so? Mo bheannachd air do cheann molach; is mi a tha toilichte t' fhaicinn.”

## Gaelic

HIGHER GRADE—(FIRST PAPER (b) )

### AURAL COMPREHENSION TEST

Tuesday, 22nd March—12.15 P.M. to 12.45 P.M.

*Answers are to be written on the sheet provided for the purpose, on which are also to be written any notes made between the readings.*

### QUESTIONS

	Marks
1. What did Hector say when they reached the mouth of the cave?	2
2. On entering what did they do?	1
3. What startled them?	2
4. What added to their fear?	2
5. Tell what the narrator saw on proceeding farther.	2
6. Describe the garb of the occupant of the cave. What was he doing?	3
7. What did Hector do and say on seeing the musician?	3
	15

## GAELIC

## HIGHER GRADE—(SECOND PAPER)

Tuesday, 22nd March—2.0 P.M. to 4.0 P.M.

**N.B.**—Begin the answer (or fair copy of an answer) to each question on a fresh page.

Marks will be deducted for bad spelling and bad punctuation, and for writing that is difficult to read.

*The value attached to each question, or part of a question, is shown in brackets after the question.*

## SECTION I

1. Write, in Gaelic, an essay, of not more than two pages in length, on any **one** of the following subjects :—

- (a) “An car a tha anns an t-seana mhaide,  
Is duilich a thoirt as.”
- (b) Cor na Gàidhealtachd an diugh.
- (c) Ciod e as fheàrr a chluinneas sinn air an radio ?
- (d) Ciod e an t-àite a roghnaicheadh tu, nam biodh an cothrom agad, air son cead samhraidh na sgoile a chur seachad, agus carson ? (30)

2. Translate into Gaelic :—

On we sailed, pitched and tossed, until about two o'clock in the morning we were roused to hear the cry “Rona ahead.” Slowly the ship was navigated to avoid outlying ridges of rock, and at dawn we were anchored comfortably in a bay on the south-east corner.

In a short time the first boat-load went ashore, and was greeted by piercing cries from a chorus of birds perched in thousands in crevices, or circling about the cliffs, while great numbers of seals from the sea joined their barks with the bird calls in protest at our invasion. By seven o'clock we were refreshed after a repast from the store of food and water we had brought. A mist lay over the two hills of Rona, but this was soon dispersed. All things had favoured us; the mist had gone; there was no wind; the sea had calmed, while a morning sun, hastening to warm us, strengthened till a glorious blue firmament was ours for the day. (30)

## SECTION II

3. Answer question (1) and any **two** of the others. The answers may be in Gaelic or in English.

(1) (a) Name the authors of **four** of the following poems :—

Am Breacan Uallach, Cumha Coire a' Cheathaich, Oran Mór  
MhicLeoid, Moladh Chloinn Domhnaill, An Claigeann, Oran na  
Comhachaig, An Suaithneas Bàn.

(b) Write a critical appreciation of any **one** poem, summarising the content and commenting on the style and versification.

## OR

Write notes on any **two** writers of Gaelic prose, other than Caraid nan Gàidheal and Am Fear Ciuil, commenting on the content and quality of their compositions. (8)

(2) Describe the historical background of the poetry of Iain Lom or of Iain Ruadh Stiubhart. (6)

(3) Discuss the Norse element in Gaelic vocabulary and place-names. (6)

(4) Locate **four** of the following, adding a note on their meaning or their historical association :—

Druim Athaisidh, Coille Chnagaidh, Coire Ghearraig, Dùn Chailleann, A' Chananaich, Dùn Breatunn. (6)

## RUSSIAN

LOWER GRADE—(PAPER (a) )

### AURAL COMPREHENSION TEST

Monday, 21st March—9.15 A.M. to 9.45 A.M.

*This paper must not be seen by any candidate.*

### INSTRUCTIONS TO THE TEACHER

1. Use the ten minutes preceding the beginning of the test to make yourself thoroughly familiar with the passage to be read.

2. When so instructed by the supervising officer, read to the candidates the "Instructions to Candidates" given below.

3. Write on the blackboard these words :—

сени : entrance hall. порог : threshold. ухватиться : to hold on, grasp ; and also the title of the passage to be read, *i.e.*, „ Пожар.“

4. Then read the passage aloud to the candidates, speaking clearly and naturally, and taking not more than **four minutes** to the reading.

5. After this reading inform the candidates that they may now turn over the printed question papers, and that they will have three minutes in which to study the questions. Remind the candidates that they may make notes during this interval of three minutes, but only on the sheets provided for the answers. You yourself will not be allowed to see the questions which are to be answered by the candidates.

6. When so instructed by the supervising officer, read the passage a second time, in exactly the same manner as on the first occasion and taking the same amount of time.

7. Remind the candidates that the questions are to be answered in English.

### INSTRUCTIONS TO CANDIDATES

1. Listen carefully to the following passage with a view to answering questions on its content.

2. The questions are to be answered in English.

3. You are on no account to touch the printed question paper or to do any writing until you are told to do so.

4. The procedure will be as follows :—

- (i) The passage will be read **twice**, with an interval of three minutes between the readings.
- (ii) After the first reading you will be allowed to turn over the printed question paper and you will have three minutes in which to study the questions.
- (iii) After the second reading you will write your answers on the sheet provided for this purpose.

5. All writing during the first and second readings is **strictly forbidden**. Notes may be made during the interval between the readings, but only on the sheet provided for the answers.

6. You may not ask for the repetition of any word or phrase.

**Passage to be read to the candidates.** (Maximum time of reading—four minutes.)

### Пожар.

Летом, во время жатвы, мужики и бабы ушли на работу. В деревне остались только старые да малые. В одной избе оставались бабушка и трое внучат. Бабушка истопила печку и легла отдохнуть. На неё сажались мухи и кусали её. Она закрыла голову полотенцем и заснула. Одна из внучек Маша (ей было три года) открыла печку, нагребла угольев в лопатку и пошла в сени. А в сенях лежали снопы. Маша принесла уголья, положила под снопы и стала дуть. Когда солома стала загораться, она обрадовалась, пошла в избу и привела за руку брата Кирюшку (ему было полтора года ; он только что выучился ходить) и сказала : — Глянь, Кирюшка, какую я печку вздула. Снопы уже горели и трещали. Когда застлало сени дымом, Маша испугалась и побежала назад в избу. Кирюшка упал на пороге, расшиб нос и заплакал. Маша втащила его в избу, и они оба спрятались под лавку. Бабушка ничего не слыхала и спала.

Старший мальчик Ваня (ему было восемь лет) был на улице. Когда он увидел, что из сеней валит дым, он вбежал в дверь, сквозь дым перескочил в избу и стал будить бабушку. Но бабушка спросонок испугалась и забыла про детей, выскочила и побежала по дворам за народом. Маша тем временем сидела под лавкой и молчала ; только маленький мальчик кричал, потому что больно разбил себе нос. Ваня услышал его крик, поглядел под лавку и закричал Маше : — Беги, сгоришь ! Маша побежала в сени, но от дыма и от огня нельзя было пройти. Она вернулась назад. Тогда Ваня поднял окно и велел ей петь. Когда она пролезла, Ваня схватил брата и

потащил его. Но мальчик был тяжёл и не давался брату. Он плакал и толкал Ваню. Ваня два раза упал, пока дотащил его к окну, дверь в избе уже загорелась. Ваня просунул мальчикову голову в окно и хотел протолкнуть его, но мальчик (он очень испугался) ухватился ручонками и не отпускал их. Тогда Ваня закричал Маше: „Тащи его за голову!“ а сам толкал сзади. И так они вытащили его на улицу и сами выскочили.

## RUSSIAN

LOWER GRADE—(PAPER (a) )

### AURAL COMPREHENSION TEST

Monday, 21st March—9.15 A.M. to 9.45 A.M.

*Answers are to be written on the sheet provided for the purpose, on which are also to be written any notes made between the readings.*

### QUESTIONS

	<i>Marks</i>
1. At what period of the year did this incident occur ?	1
2. What did grannie do after heating the stove ? Why did she cover her head with a towel ?	2
3. How old was Masha ? How did she feel and what did she do when she first saw the straw burning ? What happened to her baby brother when she ran back into the cottage with him ?	4
4. Where was Vanya when the fire broke out, and how was his attention drawn to it ?	2
5. What was grannie's reaction on being wakened ? Where had Masha and her little brother been hiding in the meantime ? How did Vanya learn where they were ?	3
6. How did Masha escape from the burning cottage ? How was the little brother rescued ?	3
	15

## RUSSIAN

LOWER GRADE—(PAPER (b) )

Monday, 21st March—10.0 A.M. to 12.15 P.M.

N.B.—Begin the answer (or fair copy of an answer) to each question on a fresh page.

Marks will be deducted for bad spelling and bad punctuation, and for writing that is difficult to read.

*The value attached to each question is shown in brackets after the question.*

1. Translate carefully, with due regard to English form and expression :—

В лесу шёл бой. Недалеко от края леса лежал в поле солдат. Его тяжело ранила вражеская пуля. Наш солдат истекал кровью, а помощь всё не приходила. Никто-никто не знал, где он находится. Поднялся ветер; как будто сквозь сон, раненый услышал, что кто-то тяжело дышит рядом с ним. С трудом он открыл глаза. В двух шагах стояла большая мохнатая собака. На ошейнике у неё висела какая-то деревянная палочка. Раненый обрадовался. Теперь он не один! — Пёсик! Сюда, сюда! — позвал он собаку. Овчарка дружелюбно вильнула хвостом. Потом она схватила в зубы палочку, висевшую на ошейнике, повернулась и убежала. — Эх! Ушла... — вздохнул раненый и закрыл глаза.

Но собака вернулась. И не одна! Она привела с собой двух людей с санями. Это были военные санитары. Они и послали овчарку искать в поле раненых. Пёс, будто к старому знакомому, бросился к солдату и лизнул его в лицо. Тогда солдат погладил овчарку и сказал: — У меня в мешке лежит шоколад. Отдайте его собаке. Она нашла меня и спасла мне жизнь. Санитары перевязали раненого и отвезли его в госпиталь. Теперь он совсем здоров.

Как же узнали санитары, что овчарка нашла раненого? Очень просто: по палочке. Раз собака вернулась из обхода с палочкой в зубах — значит, она кого-то нашла. Так уж она научена.

(30)

мохнатый : shaggy.

овчарка : sheep-dog.

2. Read the passage below, then answer the questions which follow it.

**N.B.—The passage is NOT to be translated.**

Зимой море замёрзло. Рыбаки собрались на лёд ловить рыбу. Взяли сети и поехали на санях по льду. Поехал и рыбак Андрей, а с ним его сынишка Володя. Выехали далеко-далеко. И куда ни глянь, всё лёд и лёд. Андрей с товарищами заехали дальше всех. Наделали во льду дырок и сквозь них стали запускать сети. День был солнечный, всем было весело. Володя помогал выпутывать рыбу из сетей и очень радовался, что много ловилось. Уже большие кучи мороженой рыбы лежали на льду. Андрей сказал: — Довольно, пора по домам. Но все стали уговаривать его остаться ночевать и с утра снова ловить. Вечером поели, завернулись поплотней в тулупы и легли спать в санях. Володя прижался к отцу, чтобы было теплей, и крепко заснул. Вдруг ночью отец вскочил и закричал: — Товарищи, вставайте! Смотрите, ветер какой! Не было

бы беды! Все вскочили, забегали. — Почему нас качает? — спросил Володя. А отец крикнул: — Беда! Нашу льдину оторвало и несёт в море! — Оторвало, оторвало! — тревожно заговорили люди. А кто-то крикнул: — Пропали! Володя заплакал.

Днём ветер стал ещё сильнее, волны заливали льдину, а кругом было только море. Андрей связал из двух шестов мачту, привязал на конец красную рубаху и поставил, как флаг. Может, заметят с какого-нибудь парохода. А Володя лежал в санях и смотрел в небо: не глянет ли солнышко. И вдруг в прогалине между туч Володя увидел самолёт и закричал: — Самолёт! Самолёт! Все стали кричать и махать шапками. С самолёта упал мешок. В нём была еда и записка: „Держитесь. Помощь идёт!“

Через час пришёл пароход и перегрузил к себе людей, сани, лошадей и рыбу. Это начальник порта узнал, что на льдине унесло восьмерых рыбаков. Он послал им на помощь пароход и самолёт. Лётчик нашёл рыбаков и по радио сказал капитану парохода, куда идти.

сеть : net.

качает : (impers) rocks.

шест : pole.

прогалина : opening.

### QUESTIONS

#### A. Answer in English :—

Marks

- |  |   |
|--|---|
| (1) What means of transport had the fishermen? Describe their method of fishing. What was the result of their day's work?  | 4 |
| (2) What advice did Andrey give at the end of the day? What response did it evoke?   | 4 |
| (3) How did Volodya keep warm during the night? Describe the commotion that aroused him.   | 3 |
| (4) Describe the weather at three successive stages of the story.  | 4 |
| (5) What did Andrey devise for a distress signal?  | 1 |
| (6) What came first to the men's aid, and how did they behave on its appearance? What kind of help did it bring? How was the final rescue effected, and was it long delayed? | 5 |
| (7) How many men were marooned on the ice-floe?  | 1 |

#### B. Answer in Russian :—

- |  |    |
|--|----|
| (8) Замерзает ли у нас когда-нибудь море?                                    | 1½ |
| (9) Когда рыбаки отправились на рыбную ловлю?<br>Кто был Володя? Где он жил? | 2½ |

Marks

(10) Как Володя помогал отцу? Почему он заплакал, когда проснулся ночью?

2

(11) Кто послал рыбакам самолёт и пароход на помощь? Как узнал капитан парохода, куда идти?

2

(30)

3. Write, in Russian, a continuous story based on the following summary:—

**Your story should be written in the past tense, and should be about three quarters the length of your answer to question 1.**

Русский студент только-что приехал в Шотландию. — Плохо знал язык. — Хотел осматривать город (или посетить друга). — Вошел в трамвай, — у него только банковый билет в один фунт! — Не знал, как объяснить кондуктору. — Выскочил, не заплатив, из трамвая на ходу. — Упал. — Вытерся платком. Из платка выкатилась на дорогу монета. — Ждал следующего трамвая.

(25)

## RUSSIAN

HIGHER GRADE—(FIRST PAPER)

Monday, 21st March—10.0 A.M. to 12.15 P.M.

**N.B.—Begin the answer (or fair copy of an answer) to each question on a fresh page.**

**Marks will be deducted for bad spelling and bad punctuation, and for writing that is difficult to read.**

*The value attached to each question is shown in brackets after the question.*

1. Translate carefully, with due regard to English form and expression:—

(a) Тихо было на этих горах до недавних пор, и только весёлая песня птиц, круживших в небе, да шум работавшего неподалёку трактора нарушал эту, казавшуюся иногда даже таинственной тишину.

И вдруг всё кругом ожило. Сначала одна автомашина, а за ней вторая и третья медленно поднялись на самую вершину. Из машин быстро выскакивали люди. Это были первые строители высокого здания Московского университета.

Прошло ещё несколько дней — и на этом месте уже работало несколько сот человек. Через некоторое время их стало несколько тысяч. А спустя год тридцать тысяч строителей воздвигали здание университета.

Чтобы начать такое гигантское строительство, сюда надо было доставить тысячи тонн материалов и множество различных машин. А как это сделать, когда к месту стройки вело только одно-единственное шоссе, да и оно иногда переходило в обыкновенную просёлочную дорогу?

Выходило, что без железнодорожников никак не удастся обойтись. Им выпал жребий первыми начинать работу.

В короткий срок они проложили сюда стальные линии железнодорожных путей и вскоре по ним замелькали длинные товарные поезда. А вблизи строительной площадки появилась новая железнодорожная станция.

Станция эта имеет теперь большую сеть путей и может принимать и отправлять один большой поезд за другим. И когда прозвучал первый гудок паровоза, который вёл поезд с материалами для стройки, по гладко укатанным новым асфальтированным дорогам двинулись вереницы грузовых автомашин.

(28)

вереница : line, file.

(b) Жили когда-то очень давно бабушка и внучка. Бабушка так состарилась, что работать уже не могла. А внучка была очень ленива. Бабушка с каждым годом всё старела и слабела. Вот дожила она до весны и думает: „Пить-есть надо, люди вон сеют, и нам надо что-нибудь посеять“. И говорит она об этом внучке.

— Не надо, бабушка, — ответила ей внучка. — Ты уже стара стала, к осени умрёшь, а там, глядишь, найдётся добрый человек и возьмёт меня в свою семью. К чему нам хлеб?

Так они и не посеяли ничего.

Настала осень. Народ убирает хлеб с полей. Старуха не умерла, и внучку никто не взял на воспитание. Стали они голодать.

Как-то зашла соседка, увидела, что бабушке с внучкой совсем нечего есть, и сказала:

— Хоть бы пришли и взяли у меня немного ржи . . .

Соседка ушла. Бабушка говорит внучке:

— Сходи, внучка, принеси ржи!

А внучка отвечает:

— Надо ли, бабушка? Может, рожь у неё нехорошая . . .

Всю зиму голодали бабушка с внучкой и едва не умерли. Но чуть только пришла весна — внучка вышла в поле на работу.

— Зачем трудиться? — смеялись над ней соседи. — Бабушка твоя уже стара, недолго ей жить. А тебя кто-нибудь возьмёт на воспитание. К чему вам хлеб?

— Нет уж, — отвечала внучка. — Я теперь поняла. Недаром старики говорят: если собираешься на летнюю кочёвку, прежде засеи поле.

(27)

2. Read the passage given below, then answer the questions that follow it.

**N.B.—The passage is NOT to be translated.**

Тысячу лет тому назад почти вся Русская земля была покрыта дремучими лесами и топкими болотами, и не было через них ни прохода, ни проезда. Самая безопасная дорога — это широкая река. Плавали по ней на лодках, выдолбленных из дерева. Если надо было из одной реки перебраться в другую, то вытаскивали лодки на берег и волокли по земле до другой реки. Люди, населявшие Русскую землю, назывались славяне. Они были высокого роста, плечистые с русыми волосами и светлыми глазами.

Вот на высоком берегу реки раскинулся славянский посёлок. Он состоит из двух-трёх домиков, сложенных из брёвен и обмазанных глиной. Двор обнесён валом и тыном — оградой. Крошечные оконца плотно задвинуты досками. В избе — печь, сложенная из камней и глины, без трубы. Дым выходит в окна и дверь. Про такие печи говорили: „топится по-курному“.

Славяне жили большими семьями: старик-отец со своими братьями, сыновьями, племянниками и внуками. Вместе легче землю обработать и на охоту ходить. Несколько семей составляли род. Старший в роде был начальником. Его все слушались. Иногда несколько родов собирались вместе и решали важные дела. Такое собрание называлось вече. Собирали народ по звону колокола. Так и назывался колокол вечевым.

В те времена строили и города. Они были лучше укреплены, чем посёлки; кроме земляного вала ставилась деревянная стена или ограда с башнями, бойницами. Ворота в город охраняла стража. Одним из древних славянских городов был Киев. Это был красивый город, раскинувшийся по высокому берегу Днепра. Киев стоял на водном пути в Грецию. Здесь шла оживлённая торговля. „Матерью городов“ называли славяне Киев.

Славянам часто приходилось воевать со степными кочевниками, которые подкарауливали торговые караваны славян и грабили их; нападали и на города, разоряли их и уводили жителей в плен. Борьба с постоянной опасностью воспитывала людей сильных, мужественных, трусость считалась большим позором. Славяне умели прятаться от врагов и нападать на них врасплох. Бились славяне короткими копьями, а также пускали в неприятеля стрелы из луков. Суровая жизнь сделала славян выносливыми: они не боялись ни холода, ни зноя, в пище были неприхотливы, случалось им питаться сырым мясом, сырой рыбой.

Когда славянин уходил из дома, он оставлял на столе разную еду и не запирали двери: если придёт странник, ему приготовлена еда. Гостей принимали с почётом и угощали на славу. В мирное время любили славяне повеселиться, хорошо умели они плясать, петь песни, играть на гусях.

тын : *paling, stockade.*

подкарауливать : *lie in wait for, waylay.*

плен : *captivity.*

### QUESTIONS

A.—Answer in English :—

Marks.

- (1) What is told us in this passage about (a) the physical appearance of the early Slavs, (b) means of transport utilized by them, (c) their hospitality? 6
- (2) What is said about the physical condition of Russia in the days of the early Slavs? The existence of what three methods of gaining a livelihood can be inferred from statements in the passage? 4
- (3) Explain from the context to what the expression „топится покурному“ applies. Describe the exterior and interior of the buildings mentioned in this paragraph. 4
- (4) What physical and moral qualities did the early Slavs possess, according to this passage? To what does the writer attribute the development of these qualities? 4

B.—Answer in Russian :—

- (5) Что такое род? Как называлось родовое собрание у славян? Каким образом собирали народ? 4½

(6) Какая была разница между городом и посёлком? Что за город был древний Киев? Как его называли жители древней Руси?

Marks

4½

(7) Кто были враги славян? Как славяне веселились в мирное время?

3

(30)

## RUSSIAN

HIGHER GRADE—(SECOND PAPER (a) )

### AURAL COMPREHENSION TEST

Monday, 21st March—1.30 P.M. to 2.0 P.M.

*This paper must not be seen by any candidate.*

### INSTRUCTIONS TO THE TEACHER

1. Use the ten minutes preceding the beginning of the test to make yourself thoroughly familiar with the passage to be read.

2. When so instructed by the supervising officer, read to the candidates the "Instructions to Candidates" given below.

3. Write on the blackboard the following :—

засада = ambush

лыжи = skis

тощий = очень худой, слабый.

хватать = хватил.

and also the title of the passage to be read, *i.e.*, „Кошка Маруська.“

4. Then read the passage aloud to the candidates, speaking clearly and naturally, and taking not more than **four minutes** to the reading.

5. After this reading inform the candidates that they may now turn over the printed question papers, and that they will have three minutes in which to study the questions. Remind the candidates that they may make notes during this interval of three minutes, but only on the sheets provided for the answers. You yourself will not be allowed to see the questions which are to be answered by the candidates.

6. When so instructed by the supervising officer, read the passage a second time, in exactly the same manner as on the first occasion and taking the same amount of time.

7. Remind the candidates that the questions are to be answered in English.

### INSTRUCTIONS TO CANDIDATES

1. Listen carefully to the following passage with a view to answering questions on its content.

2. The questions are to be answered in English.

3. You are on no account to touch the printed question paper or to do any writing until you are told to do so.

4. The procedure will be as follows :—

- (i) The passage will be read **twice**, with an interval of three minutes between the readings.
- (ii) After the first reading you will be allowed to turn over the printed question paper and you will have three minutes in which to study the questions.
- (iii) After the second reading you will write your answers on the sheet provided for this purpose.

5. All writing during the first and second readings is **strictly forbidden**. Notes may be made during the interval between the readings, but only on the sheet provided for the answers.

6. You may not ask for the repetition of any word or phrase.

**Passage to be read to the candidates.** (Maximum time of reading—four minutes.)

### Кошка Маруська.

У деревенского охотника Никиты Ивановича жила пёстрая кошка Маруська. Плешивая кошка, худая, тощая, потому что Никита Иванович её очень плохо кормил. Весной кошка Маруська с голоду стала ходить в лес на охоту. Потихоньку, крадучись, чтобы деревенские собаки её не видели, уйдёт она из деревни и охотится в лесу. То мышку поймает, то изловит какую-нибудь птицу. Пошла она так однажды охотиться да и осталась совсем жить в лесу. Скоро кошка Маруська потолстела, похорошела, гладкой стала. Ходит по лесу, как разбойник, гнёзда разоряет—живёт в своё удовольствие. А хозяин её—Никита Иванович—о ней совсем и забыл.

Но вот пришла осень. Птицы из лесу улетели. Только мыши остались на добычу кошке Маруське. Потом и настоящая зима настала. Мыши стали жить под снегом. Редко-редко когда выбегут. Пробегут поверху немного и опять уйдут в свои подснежные ходы-переходы. Плохо тут пришлось Маруське. И холодно и голодно. Как прокормиться? Стала устраивать засады. Залезет на дерево и лежит на суку: ждёт, не пробежит ли под деревом мышка или заяц. А если пробежит, Маруська тогда сверху и кинется. Плоха такая охота. Оточала кошка, похудела, стала злой, как дикий зверь.

Однажды Никита Иванович собрался на охоту. Надел заячью шапку-ушанку, овчинный полушубок, взял ружьё, взял мешок для добычи и пошёл на лыжах в лес. Идёт он по лесу и разные звериные следы разбирает. Вот заяц прыгал, — наследил, вот лиса прошла, а вот белка от дерева к дереву по снежку проскакала. Проходит он мимо высокой, толстой ели — и вдруг как свалится ему прямо на голову какой-то зверь. Когтями его заячью шапку рвёт, шипит, ворчит. Никита хватъ зверя обеими руками — так вместе с шапкой и снял с головы. Хотел бросить зверя наземь, — глядит: да это его пёстрая кошка Маруська! Тощая-претощая, одна кожа да кости. — Эх ты, — засмеялся Никита Иванович, — горе-охотник! Заячью шапку с зайцем спутала. Пожалел он её, принёс домой и с тех пор стал кормить как следует.

## RUSSIAN

HIGHER GRADE—(SECOND PAPER (a) )

### AURAL COMPREHENSION TEST

Monday, 21st March—1.30 P.M. to 2.0 P.M.

*Answers are to be written on the sheet provided for the purpose, on which are also to be written any notes made between the readings.*

### QUESTIONS

- |  | <i>Marks</i> |
|--|--------------|
| 1. What was the cat's condition at the beginning of the story, and why?  | 1½           |
| 2. When did she decide to leave her master? Where did she go, and what did she do there? Did her master remember her when she disappeared?                   | 4            |
| 3. When did life become difficult for the cat, and why?  | 1½           |
| 4. What was the cat's way of conducting an ambush?   | 2            |
| 5. Name three animals whose traces the huntsman discovered on the occasion mentioned in the story. What happened to the huntsman as he passed by a fir tree? | 4            |
| 6. What was the huntsman's reaction as a result of the final incident, and what was the sequel as regards the cat?   | 2            |

15

## RUSSIAN

HIGHER GRADE—(SECOND PAPER (b) )

Monday, 21st March—2.15 P.M. to 4 P.M.

N.B.—Begin the answer (or fair copy of an answer) to each question on a fresh page.

Marks will be deducted for writing that is difficult to read.

*The value attached to each question is shown in brackets after the question.*

1. Translate into Russian :—

Peter and Vera sat down in a big hut with large, open windows, from which they could see the blue water below. All around them sat their new friends, four to a table, just as in a restaurant. Their leader, whose name was Boris, rose and said in a loud voice : “ Friends, our guests are tired and hungry. Ask your questions later, please. To-night we will have a meeting, and they will tell you about themselves.” “ What a splendid dinner ! ” whispered Peter to his sister. “ Is this a camp\* or a hotel ? ” They began with soup, and went on to hot chicken with potatoes. And there was fresh fruit to finish with. After dinner Boris explained to Peter and Vera that it was a time of rest for the younger boys and girls, who had to lie down till tea-time. “ Indeed ? ” cried Peter, when this was interpreted to him. “ Do they have to eat again ? ” “ Only tea and cakes,” he was told. Peter and his sister then went with several of the older boys and girls to the sea shore, and bathed till tea-time.

After tea there was a big meeting. The four fliers sat in the middle and about two hundred and fifty children gathered round. Olga and Ivan, two children who could speak English, sat behind Peter and Vera and translated every word they heard to them. Dick told the children a lot about the aeroplane. He promised to show it to them in the morning, then he answered their numerous questions. (50)

\* camp : лагерь

2. Write an essay in Russian on one of the following themes :—

(a) Домашние животные.

(b) Деревня и город.

(c) Письмо к другу в С.С.С.Р.

(25)

## ITALIAN

LOWER GRADE—(PAPER (a) )

## AURAL COMPREHENSION TEST

Wednesday, 23rd March—9.15 A.M. to 9.45 A.M.

*This paper must not be seen by any candidate.*

### INSTRUCTIONS TO THE TEACHER

1. Use the ten minutes preceding the beginning of the test to make yourself thoroughly familiar with the passage to be read.
2. When so instructed by the supervising officer, read to the candidates the "Instructions to Candidates" given below.
3. Write on the blackboard the words :—  
davanzale = the window-ledge.
4. Then read the passage aloud to the candidates, speaking clearly and naturally, and taking not more than **four minutes** to the reading.
5. After this reading inform the candidates that they may now turn over the printed question papers, and that they will have three minutes in which to study the questions. Remind the candidates that they may make notes during this interval of three minutes, but only on the sheets provided for the answers. You yourself will not be allowed to see the questions which are to be answered by the candidates.
6. When so instructed by the supervising officer, read the passage a second time, in exactly the same manner as on the first occasion and taking the same amount of time.
7. Remind the candidates that the questions are to be answered in English.

### INSTRUCTIONS TO CANDIDATES

1. Listen carefully to the following passage with a view to answering questions on its content.
  2. The questions are to be answered in English.
  3. You are on no account to touch the printed question paper or to do any writing until you are told to do so.
  4. The procedure will be as follows :—
    - (i) The passage will be read **twice**, with an interval of three minutes between the readings.
    - (ii) After the first reading you will be allowed to turn over the printed question paper, and you will have three minutes in which to study the questions.
    - (iii) After the second reading you will write your answers on the sheet provided for this purpose.
  5. All writing during the first and second readings is **strictly forbidden**. Notes may be made during the interval between the readings, but only on the sheet provided for the answers.
  6. You may not ask for the repetition of any word or phrase.
- Passage to be read to the candidates :—**(Maximum time of reading—four minutes.)

Il visitatore entrò nella casa, e disse il suo nome alla vecchia serva negra venuta ad aprire la porta. Ma la serva o non lo sentì o lo dimenticò, perchè lui, dopo-esser fatto entrare nel salotto, dovè aspettare tre quarti d'ora. Non aveva niente da fare. Aspettava e mentre aspettava guardava intorno a sè.

Sotto il davanzale di quella finestra aperta, al quinto piano, una coppia di uccelli aveva fatto il nido. Subito un grosso gatto nero entrò nel salotto per l'uscio semi-chiuso e d'un balzo montò sul davanzale, e cominciò a dare la caccia ai due uccelli di quel nido. Il visitatore si rese subito conto di un pericolo, e il pericolo era questo—che un vaso di fiori era esposto su quel davanzale, e lui sapeva che quel vaso di fiori, a una spinta del gatto, sarebbe precipitato giù dalla finestra sulla testa di qualcuno.

Il visitatore non aspettava più il padrone di casa ; aspettava un'altra cosa, terribile : un grido dalla strada : un grido che gli annunziasse la morte di qualcuno ; la morte di un passeggiere qualunque, che al momento giusto si trovasse a passare sotto la finestra di quel salotto al quinto piano. Già, con la coda, il gatto aveva mosso due volte il vaso che adesso era quasi sull'estremità del davanzale, e il visitatore non respirava già più dalla paura e aveva il collo bagnato di sudore.

La disgrazia era inevitabile. Se lui avesse levato il vaso per impedire la disgrazia, l'avrebbe impedita oggi, ma domani la vecchia serva avrebbe rimesso il vaso al suo posto, sul davanzale : appunto perchè il davanzale, per quel vaso, era il suo posto. Era inevitabile.

Lui non poté più stare nell'incertezza ; se ne fuggì. Precipitandosi giù per le scale, arrivò nella strada giusto in tempo a ricevere sul capo il vaso di fiori che proprio a quel momento cadde dalla finestra.

## ITALIAN

LOWER GRADE—(PAPER (a) )

### AURAL COMPREHENSION TEST

Wednesday, 23rd March—9.15 A.M. to 9.45 A.M.

*Answers are to be written on the sheet provided for the purpose, on which are also to be written any notes made between the readings.*

### QUESTIONS

	Marks
1. Explain how the visitor came to be in the drawing-room. How long was he there ?	3
2. What had attracted the cat's attention ? What did it do as a result ?	3
3. (a) What danger did the visitor foresee ? (b) What did he expect to hear at any moment ?	3
4. What evidence have you of his state of mind ?	1
5. Could the visitor have averted the danger ? (Give your reasons.)	2
6. Why did he leave and what happened after he left ?	3
	<hr/> 15 <hr/>

## ITALIAN

## LOWER GRADE—(PAPER (b) )

Wednesday, 23rd March—10.0 A.M. to 12.15 P.M.

**N.B.—Begin the answer (or fair copy of an answer) to each question on a fresh page.**

**Marks will be deducted for bad spelling and bad punctuation, and for writing that is difficult to read.**

*The value attached to each question is shown in brackets after the question.*

1. Translate carefully with due regard to English form and expression:—

Il padrone da solo non poteva più andare a passeggiare, perchè si tirava dietro una gamba che era pesante come il ferro. La padrona voleva che andassi io a dargli il braccio; ma io mi vergognavo, e quando la padrona chiamava:—“Zvanì, Zvanì, vieni a condurre a passeggiare il signore,”—io facevo finta di non sentire. Allora andava mio padre, e la padrona gli aveva fatto un bel vestito tutto nero:—“Così sembrate due signori che vanno a passeggiare.”

“Ah, bei signori!”—diceva lui—e non voleva andare per la strada per dove passava la gente.

“Credi?”—diceva alla padrona,—“anche con l’abito nuovo che metti a Mingòn, che la gente non capisca che io sono ammalato?”

E aveva vergogna di farsi vedere in quello stato, e si faceva condurre su e giù per la viottola che passava in mezzo alla vigna.

Si fermava ogni tanto a guardare l’uva.

“E dopo che sarà cresciuta”—diceva—“voi le tagliate la testa con la falchetta<sup>1</sup>; le spighe del grano già le avete tagliate con la falchetta; la gallina quando non è più buona di fare le uova, le tirate il collo: la vacca, poveretta, la tenete incatenata per tutta la vita, e quando non dà più quei tanti litri di latte, via, dal macellaio!”

(30)

<sup>1</sup> falchetta = sickle.

2. Read the passage below, then answer the questions which follow it.

**N.B.—The passage is NOT to be translated.**

Pochi giorni dopo ero a Roma, per prendervi domicilio. Perchè a Roma e non altrove? Scelsi Roma, prima di tutto perchè mi piacque sopra ogni altra città, e poi perchè mi parve più adatta a ospitar con indifferenza, tra tanti forestieri, un forestiere come me.

La scelta della casa, cioè d’una cameretta decente, in qualche via tranquilla, presso una famiglia discreta, mi costò molta fatica. Finalmente la trovai in via Ripetta, alla vista del fiume. A dir vero, la prima impressione che ricevetti della famiglia che doveva ospitarmi fu poco favorevole; tanto che, tornato all’albergo, rimasi a lungo perplesso se non mi convenisse di cercare ancora.

10 Venne ad aprirmi un vecchio su i sessant’anni, coi piedi scalzi entro un paio di pantofole, le mani insaponate e con un turbante<sup>1</sup> di saponata in capo.

“Oh scusi!” esclamò. “Credevo che fosse la serva . . . Abbia pazienza: mi trova così . . . Adriana! Terenzio! E subito, via! Vedi che c’è qua un signore . . . Abbia pazienza un momentino; favorisca . . . Che cosa desidera?”

"S'affitta<sup>2</sup> qua una camera mobiliata ? "

"Sissignore. Ecco mia figlia : parlerà con lei. Su, Adriana, la camera ! "

Apparve, tutta confusa, una signorinetta piccola piccola, bionda, pallida, dagli occhi ceruli, dolci e mesti, come tutto il volto.

"Ma Terenzio dov'è ? " domandò l'uomo.

"Oh Dio, papà, sai bene che è a Napoli, da ieri. Ritirati. Se ti vedessi . . . " gli rispose la signorinetta mortificata, con una vocina tenera che, pur nella lieve irritazione, esprimeva la mitezza dell'indole.

Quegli si ritirò ripetendo : "Ah, già ! ah già ! ". Non potei fare a meno di sorridere, ma benevolmente per non mortificare di più la figliuola. Mi parve dapprima una ragazzetta ; poi, osservando bene l'espressione del volto, m'accorsi che era già donna. Vestiva di lutto. Parlando pianissimo e sfuggendo di guardarmi, m'introdusse, attraverso un corridoio buio, nella camera che dovevo prendere in affitto. Aperto l'uscio mi sentii allargare il petto, all'aria, alla luce che entravano per due ampie finestre che guardavano sopra il fiume. Si vedeva il vecchio ponte di Ripetta e il nuovo che vi si costruiva accanto ; in fondo, da quest'altra parte, si scorgevano le verdi alture del Gianicolo e la statua equestre di Garibaldi.

"E . . . dica, signorina : loro non affittano altre camere, è vero ? "

"Questa è la migliore," mi rispose senza guardarmi. "Se non le accomoda . . . "

"No, no . . . Domandavo per sapere se . . . "

"Ne affittiamo un'altra," disse allora ella, alzando gli occhi con aria d'indifferenza forzata. "Di là, posta sul davanti . . . su la via. E occupata da una signorina che sta con noi ormai da due anni : dà lezioni di pianoforte . . . non in casa."

Accennò, così dicendo, un sorriso lieve lieve, e mesto. Aggiunse :

"Siamo io, il babbo e mio cognato, che si chiama Terenzio Papiano. Deve però andar via, col fratello che per ora sta anche lui qua con noi. Mia sorella è morta . . . da sei mesi."

<sup>1</sup> turbante = turban.

<sup>2</sup> affittare = to let.

## QUESTIONS

A. Answer in English :—

Marks

- (1) "ero a Roma, per prendervi domicilio." (line 1)

Did this prove difficult ? What were the author's requirements in this respect, and why did he especially choose Rome ?

4

- (2) "Venne ad aprirmi un vecchio . . ." (line 10)

What were the old man's reactions on opening the door ? Explain the reasons for them.

3

- (3) Who was Terenzio, and why did he not come in reply to the old man's call ?

2

- (4) Who was Adriana ? What do you learn of her appearance and character ?

5

- Marks*
- (5) (a) What description does the author give of the room offered to him ?  
 (b) What could be seen from its windows ?  
 (c) Did he decide at once to take the room ? (Give proof.) 5
- (6) What members of the family lived there other than Adriana and the old man ? 1
- (7) " Questa è la migliore " (line 35)  
 Why was the other room inferior ? By whom was it occupied ?  
 Why did Adriana feel it necessary to add " non in casa " ? 3

**B. Answer in Italian :—**

- (8) L'autore non potè " fare a meno di sorridere " Perché ? 3  
 (lines 24-25).
- (9) Che cosa significa essere vestito " di lutto " ? (line 27) 3
- (10) Spiegare il significato di " la signorinetta mortificata. " (line 22) 1

—  
30  
—

**3. Write in Italian a continuous narrative based on the following summary:—**

**Past tenses must be used, and your story should be of approximately the same length as your answer to Question 1.**

Un Italiano che non parla inglese si trova nella Scozia—vede una vecchia che scende da un autobus—cerca di aiutarla—la vecchia grida "Al ladro!"—tutti credono che l'italiano abbia cercato di rubare qualcosa alla vecchia—un giovane studente fa da interprete—tutto finisce bene.

(25)

**ITALIAN**

**HIGHER GRADE—(FIRST PAPER)**

Wednesday, 23rd March—10.0 A.M. to 12.15 P.M.

**N.B.—Begin the answer (or fair copy of an answer) to each question on a fresh page.**

**Marks will be deducted for bad spelling and bad punctuation, and for writing that is difficult to read.**

*The value attached to each question is shown in brackets after the question.*

**1. Translate carefully with due regard to English form and expression:—**

(a) Una delle più belle strade maestre d'Europa è quella che percorre da Genova a Nizza tutta la riviera di ponente. Poche strade certamente riuniscono in sè, come questa, tre condizioni di bellezza naturale: il Mediterraneo da un lato, dall'altro gli Appennini, e di sopra il puro cielo d'Italia. Per giunta, l'industria dell'uomo ha fatto ogni sforzo, se non per superare, almeno per non

rimanere inferiore alla natura. Un seguito di città e di paeselli, alcuni graziosamente stesi sulla riva, bagnati ai piedi dalle onde argentine, altri sparsi come branchi di pecore sui fianchi della montagna, o pittorescamente elevati sulla cima di una catena di monti sublimi; qua e là qualche santuario sospeso in alto sopra uno scoglio bagnato dal mare, o mezzo perduto sulla collina fra il verde del bosco; un'infinità di casine bianche con persiane verdi, sparse per i declivi di quei colli, sterili un tempo, ora rivestiti tutti di ulivi, grazie ai muriccioli l'uno sull'altro elevati che trattengono lo scarso terriccio. Tutto insomma quanto v'è, creazione della mano dell'uomo, mostra l'operosità e l'industria di una razza vigorosa e gentile. (30)

(b) Il podestà era sulla piazza, il pomeriggio, per condurmi dalla sorella. Donna Caterina ci aspettava, aveva preparato il caffè e dei dolci di farina fatti con le sue mani. Mi accolse con grande cordialità sull'uscio, mi condusse in salotto, una stanza dai mobili modesti, si informò della mia famiglia, commiserò la mia solitudine, mi assicurò che avrebbe fatto il possibile per rendere meno sgradevole il mio soggiorno; fu, insomma, l'amabilità in persona. Era una donna di una trentina d'anni, piccola e grassoccia. Di viso assomigliava al fratello, ma con un aspetto più volontario e appassionato. Gli occhi aveva nerissimi, come i capelli; la pelle lucida e giallastra e i denti guasti le davano un aspetto malsano. Parlava con una voce alta:

"Vedrà, dottore, qui si troverà bene. Per la casa me ne occuperò subito. Ora non ce ne sono, ma presto se ne faranno delle libere. Lei deve avere un buon alloggio, e una stanza per ricevere i malati. Le troverò anche una serva. Assaggi queste focacce, lei sarà abituato a cose più fini. Per noi è una grande fortuna che lei sia arrivato!"

Don Luigi, con l'aria di chi non si vuol compromettere, taceva; e di lì a poco, se ne andò. (25)

2. Carefully read the poem given below, and then answer the questions which follow.

**N.B.—The poem is NOT to be translated.**

- 1 Il gatto andò alla casa del villano  
col collo torto e molta sommissione;  
gli si accostò all'orecchio, e disse piano:  
"Deh, prestami, o villan, la tua abitazione.
- 5 Non mi terrai nella tua casa in vano,  
perchè col fiero dente e con l'unghione  
io ti difenderò le noci e il grano  
dai topi che non hanno discrezione."
- 9 Il villan ciò si reca a gran ventura;  
gli dà la chiave di tutti i granai,  
dicendo:—"Amico mio, abbine cura."
- 12 Non fu veduto mai  
tanto macello come quella notte,  
che le truppe topesche furon rotte.
- 15 Di lagrime dirotte  
bagnòssi ambe le guance il contadino  
poi che si svegliò e ciò vide al mattino:
- 18 il gatto paladino  
prese per mano, al sen lo strinse, i bigi  
peli gli lisciò, e gli baciò i barbigi.<sup>1</sup>

- 21 Ma sì grandi servigi  
non furon del gatto il dì seguente :  
forse era stanco dell' antecedente.
- 24 La terza notte si sente  
miagolar su per i tetti in compagnia :  
odonlo i topi e ruban tuttavia.
- 27 Il gatto poi si mette a rubare  
il lardo, i pesci e tutta la cucina,  
e lascia i topi, e vive di rapina.
- 30 Il padron si tapina<sup>2</sup>  
vedendo tanto mal ; ne accusa il gatto ;  
e finalmente lo coglie sul fatto,
- 33 e dice, " Com'ero matto !  
Per difendermi dai topi  
in casa ti raccolsi : or mi sta bene,  
se facesti come a gatto si conviene."
- <sup>1</sup> barbigi = baffi.  
<sup>2</sup> si tapina = si dispera.

### QUESTIONS

#### A. Answer in English :—

- |   | Marks |
|---|-------|
| 1. How does the cat approach the peasant ?  | 1½    |
| 2. (a) What does the cat say he is willing to do ?  |       |
| (b) What condition does he lay down ?   | 2½    |
| 3. How does the peasant receive the cat's suggestion ?                                    | 2½    |
| 4. (a) What does the cat do on the first night ?  |       |
| (b) What are the peasant's reactions to the cat's activities ?                            | 4     |
| 5. How effective is the cat on the second and third nights ? For what reasons ?           | 4½    |
| 6. What is the final stage in the cat's career ?  | 3     |
| 7. " Com'ero matto ! "  |       |
| What leads the peasant to say this ? On whom does he lay the blame, and for what reason ? | 3     |

#### B. Answer in Italian :—

- |   |   |
|---|---|
| 8. Spiegare il significato della frase " topi che non hanno discrezione".<br>(line 8) | 3 |
| 9. Perchè si chiama <i>paladino</i> il gatto ? (line 18)                              | 3 |
| 10. Quale morale si potrebbe trarre da questa poesia ?                                | 3 |

## ITALIAN

## HIGHER GRADE (SECOND PAPER (a) )

## AURAL COMPREHENSION TEST

Wednesday, 23rd March—1.30 P.M. to 2.0 P.M.

*This paper must not be seen by any candidate.*

## INSTRUCTIONS TO THE TEACHER

1. Use the ten minutes preceding the beginning of the test to make yourself thoroughly familiar with the passage to be read.
2. When so instructed by the supervising officer, read to the candidates the "Instructions to Candidates" given below.
3. Then read the passage aloud to the candidates, speaking clearly and naturally, and taking not more than **four minutes** to the reading.
4. After this reading inform the candidates that they may now turn over the printed question papers, and that they will have three minutes in which to study the questions. Remind the candidates that they may make notes during this interval of three minutes, but only on the sheets provided for the answers. You yourself will not be allowed to see the questions which are to be answered by the candidates.
5. When so instructed by the supervising officer, read the passage a second time, in exactly the same manner as on the first occasion and taking the same amount of time.
6. Remind the candidates that the questions are to be answered in English.

## INSTRUCTIONS TO CANDIDATES

1. Listen carefully to the following passage with a view to answering questions on its content.
2. The questions are to be answered in English.
3. You are on no account to touch the printed question paper or to do any writing until you are told to do so.
4. The procedure will be as follows :—
  - (i) The passage will be read **twice**, with an interval of three minutes between the readings.
  - (ii) After the first reading you will be allowed to turn over the printed question paper, and you will have three minutes in which to study the questions.
  - (iii) After the second reading you will write your answers on the sheet provided for this purpose.
5. All writing during the first and second readings is **strictly forbidden**. Notes may be made during the interval between the readings, but only on the sheet provided for the answers.

6. You may not ask for the repetition of any word or phrase.

**Passage to be read to the candidates :—**(Maximum time of reading—four minutes.)

Poco prima di Trento, stanco, assetato, bussai alla porta di una povera casa per cercarvi un po' d'acqua ; al primo colpo nessuno rispose ; bussai di nuovo, e di dentro una voce triste domandò :

“ Che volete ? ”

“ Un po' d'acqua.”

“ Passate.”

Spinsi l'uscio e entrai. La stanza era bassa. A sinistra un gran focolare, aperto fino a terra. Seduto presso al focolare vi era un uomo di forme gigantesche. Con un coltello tagliava un gran pane nero. Dal lato opposto del focolare, vidi dei ragazzi robusti, sudici che guardavano con un occhio me, con un altro il pane.

Gettata ai ragazzi la loro parte di pane, l'uomo si alzò e, lavato un bicchiere, vi versò l'acqua da una fiasca, lo pose sul tavolino e brontolò :

“ Bevete ! ”

Bevvi, ringraziai, e stavo per andarmene ; ma vi era nell'aspetto malinconico di quella stanza, nella fisionomia triste di quell'uomo, nel suo desiderio manifesto di liberarsi di me, tanto da svegliare la mia curiosità. Cercai un pretesto per rimanere un po'.

“ Non avete un po' di latte, buono come lo dovete avere qui nel Trentino ? ”

L'uomo accennò di sì col capo. Uno dei ragazzi uscì, e tornò con una scodellina piena di latte caldo. Lo bevvi e, posata la scodellina, esclamai :

“ Che buon latte ! ”

Ma l'uomo non rispose ; seccato, soggiunsi :

“ Che cosa costa ? ”

“ Nulla.”

“ Come nulla ? ”

“ Nulla.”

“ Va bene,” dissi, “ farò così . . . ”

E tratta fuori dalla borsa una lira :

“ Tieni, ragazzo,” dissi, “ dalla alla mamma.”

Capii subito di aver detto una sciocchezza.

L'uomo si alzò lentamente e mormorò :

“ La mamma è morta due giorni fa.”

## ITALIAN

HIGHER GRADE—(SECOND PAPER (a) )

### AURAL COMPREHENSION TEST

Wednesday, 23rd March—1.30 P.M. to 2.0 P.M.

*Answers are to be written on the sheet provided for the purpose, on which are also to be written any notes made between the readings.*

## QUESTIONS

Marks

- |   |       |
|---|-------|
| 1. (a) Explain how the author came to visit the house in question.                                |       |
| (b) What was the house like inside ?  | 3     |
| 2. Describe the various people living there and say what they were doing when the author arrived. | 3½    |
| 3. What did the man do in response to the author's first request ?                                | 3     |
| 4. What caused the author to prolong his stay ?   | 2½    |
| 5. How was his second request treated ?   | 1½    |
| 6. What blunder did the author make in his attempt to pay for what he had received ?              | 1½    |
|   | <hr/> |
|   | 15    |
|   | <hr/> |

## ITALIAN

HIGHER GRADE—(SECOND PAPER (b) )

Wednesday, 23rd March—2.15 P.M. to 4 P.M.

N.B.—Begin the answer (or fair copy of an answer) to each question on a fresh page.

Marks will be deducted for writing that is difficult to read.

*The value attached to each question is shown in brackets after the question.*

1. Translate into Italian :

My young friend, Robert (now nearly thirteen), has been making his plans for the Christmas holidays. He described them to me in a letter from school :

"I am going to write an opera in the holidays with a boy called Short, a very great and confidential friend of mine here. I am writing the words and Short is writing the music. We have already got the title ; it is called 'Unhappiness'."

Last week, on his return to town, he came to see me at my house. His recent discovery that I write too has led him to treat me with more respect than formerly.

"Now then," I said, "tell me about it. How's it going on?"

"Oh, I haven't done much yet," said Robert, "but I've got the story. You see, the First Act is in a very grand restaurant, and Tommy comes in to have dinner, and he explains to Reynolds how he met Felicia on a boat, and she'd lost her umbrella, and he said, 'Is this your umbrella?' and it was, and they began to talk to each other, and then he was in love with her. And then he goes out, and then Reynolds explains what a decent chap Tommy is."

"Why does he go out?"

"Well, you see, Reynolds couldn't tell everybody what a decent chap Tommy is if Tommy was there."

2. Write an essay in Italian on **one** of the following subjects :—

**Your essay should not be shorter than your answer to Question 1.**

(a) Il giorno di Natale.

(b) Difetti e vantaggi delle scuole miste (co-educational).

(25)

## SCIENCE

### LOWER GRADE

Wednesday, 16th March—1.45 P.M. to 4.15 P.M.

**Not more than EIGHT questions, which must be chosen from TWO Sections, should be attempted. At least three questions must be taken from each of these two sections. Questions based on work which is included in the old syllabus but not in the new are marked with an asterisk.**

**Answers should, wherever possible, be illustrated by clear diagrams of reasonable size.**

*Mathematical tables, which include a table of atomic weights, will be supplied to those who desire them.*

**N.B.—Write legibly and neatly, and leave a space of about half an inch between the lines.**

**Marks will be deducted for bad spelling and bad punctuation, and for writing that is difficult to read.**

*The value attached to each question, or to each part of a question, is shown in the margin.*

### SECTION I—Physics

	Marks
1. What is meant by the <i>centre of gravity</i> of a body ?	1
How would you find experimentally the position of the centre of gravity of an irregularly shaped thin sheet of carboard ? Explain the theory of your method.	6
Explain why the position of the centre of gravity of an omnibus is as low as possible.	2
A tapered rod, 90 cm. long, and of mass 500 gm., has its centre of gravity at a point 25 cm. from one of its ends. The rod is suspended from a string attached to its mid-point. Find where a load of 400 gm. has to be applied to the rod to keep it horizontal, and the tension then exerted in the supporting string.	3½
2. Convert 77° F. to degrees Centigrade, and — 10° C. to degrees Absolute.	1½
Describe an experiment to verify Charles' Law and sketch the graph that could be drawn from your observations.	8
If an electric heater took 3 minutes to raise the temperature of 50 gm. of water from 20° C. to boiling point, how long would it take to convert all the boiling water into steam ?	
(Latent heat of vaporization of water = 540 cal. per gm.)	3

## Marks

## 3. Either—

(a) Describe an experiment to investigate the image formed by a convex lens when the object is distant from the lens twice the focal length.

6½

In what respects does the above image differ from that formed by a plane mirror?

2

A man, 6 ft. tall, stands 4 ft. away from a vertical plane mirror. Draw an accurate diagram to show how it is possible for him to view his image in the mirror, and by measurement find the least height of mirror necessary to enable him to see the whole of his image.

4

## Or—

\*(b) What is meant by (i) *apparent*, and (ii) *real* (or *absolute*) coefficient of expansion of a liquid? What is the relation between them?

3

Describe an experiment by which the coefficient of apparent expansion of methylated spirit can be determined, and show how the result can be calculated from the observations.

6

A glass bottle has a capacity of 100 c.c. at a certain temperature. What volume of mercury at the same temperature must be placed in the bottle in order that the space unoccupied by the mercury will remain constant when the temperature changes?

(Coefficient of linear expansion of glass = 0.000009 per Centigrade degree; coefficient of real expansion of mercury = 0.000182 per Centigrade degree.)

3½

## 4. Either—

(a) (i) Explain why a raindrop has a spherical shape.

3½

(ii) State, with an explanation, how it is possible for an observer to estimate the distance from himself of a lightning flash.

3

(iii) How may the frequency of the note emitted by a tuning fork be determined?

6

## Or—

\*(b) State the *inverse square law* which applies to magnetic poles and describe an experiment by which it may be verified.

8

A bar magnet, 10 cm. long, and of pole strength 24 units, is placed horizontally in the magnetic meridian with its north pole pointing south. A neutral point is located 15 cm. from the centre of the magnet. Calculate the horizontal component of the earth's magnetic field.

4½

5. Define the *ohm*.

2

Describe an experiment to investigate the relation between resistance and area of cross-section for conductors made of wire.

6½

Calculate the resistance of the filament of an electric lamp marked 100 W., 250 V.

4

6. With the aid of a labelled diagram explain the construction and working of a moving-coil ammeter.

9½

How may an ammeter, of resistance 0.036 ohm, which reads up to 1 amp., be adapted to read up to 10 amp.?

3

## SECTION II—Chemistry

Answers should, wherever possible, be supplemented by equations.  
Approximate values of atomic weights will be found in the book of mathematical tables

- |   | <i>Marks</i> |
|---|--------------|
| 7. Describe the preparation of hydrogen in the laboratory.  | 5½           |
| Describe an experiment which shows the reaction between hydrogen and chlorine, and one which shows the reaction between hydrogen and copper oxide.  | 6            |
| Explain how these two reactions illustrate two aspects of the reducing action of hydrogen.  | 1            |
| 8. State what you observe when lead nitrate is heated.  | 2            |
| Write the equation for the reaction and name the products.  | 2½           |
| Describe how you would obtain a sample of (i) nitric acid, (ii) ammonia, using ammonium nitrate and one other chemical in each case.  | 8            |
| 9. Describe in detail an experiment to determine the equivalent of magnesium by displacement of hydrogen.   | 7            |
| A metal whose atomic weight is approximately 120 forms an oxide which contains 21·2 per cent of oxygen. Calculate (i) the equivalent, (ii) the accurate atomic weight, of the metal.  | 5½           |
| 10. Given pure anhydrous sodium carbonate and an approximately normal solution of hydrochloric acid, describe in detail how the acid solution may be standardized.  | 7½           |
| 25 c.c. of lime water required 20 c.c. of 0·06 normal hydrochloric acid for neutralization. Calculate (i) the normality of the lime water, and (ii) the weight of slaked lime in one litre of the lime water.   | 5            |
| 11. Describe how, starting with sulphur, iron filings, and concentrated sulphuric acid, you would obtain a few gas jars of hydrogen sulphide. What impurity may be present in the gas, and why?   | 7½           |
| Explain what is observed when hydrogen sulphide is passed into (i) lead acetate (or lead nitrate) solution, (ii) chlorine water.  | 5            |
| 12. How may hydrogen chloride be prepared in the laboratory?  | 5            |
| Write the equations for the reactions which occur when hydrochloric acid is (i) added to sodium bicarbonate, (ii) warmed with manganese dioxide, (iii) added to silver nitrate solution. In each case state how the gaseous product, if any, can be identified. | 7½           |

## SECTION III—Botany

13. To which families do the following plants belong :—Sweet Pea, White Deadnettle, Apple, Wallflower, Foxglove?

Write the floral formula of **either** Wallflower **or** Sweet Pea and make a large labelled drawing of the flower, cut lengthwise. Where are the nectaries of this flower, and what is their significance?

Describe the fruit of the chosen example. How are the seeds set free from the ovary?

## Marks

14. Describe an experiment to show that carbon dioxide is necessary for photosynthesis.

6

Outline the process by which starch comes to be stored in a crocus corm. Make a large labelled drawing of this corm, cut vertically to show the structure.

6½

15. With reference to the young stem of a dicotyledon describe the position, structure, and functions of : epidermis, cortex, medullary rays, cambium, sieve-plates.

12½

16. Make large labelled drawings to show the structure of the seed of broad bean (or pea) and describe what happens to each part between the time of sowing the seed and the unfolding of the first leaves.

9½

How would you show that oxygen is necessary for germination ?

3

17. State two atmospheric conditions which favour rapid transpiration.

2

Draw the apparatus which you would use to compare the rates of transpiration of a leafy twig exposed to different conditions. Mention three precautions necessary in setting up the experiment. How would you take measurements ?

8½

State two purposes for which a plant requires water.

2

18. Give an illustrated account of the appearance in winter of a twig of a named deciduous tree. How do gases enter and leave the twig in winter ?

9½

Explain why it is possible to determine the age of a twig from an examination of its external features.

3

## SECTION IV—Zoology

19. Distinguish between digestion and absorption of food.

2

Describe the position and functions of (i) the liver, (ii) the pancreas, (iii) the ileum, in **either** a named mammal **or** a frog.

10½

20. What do you understand by *metamorphosis* ?

2

Choose any named butterfly or moth and state how it obtains nourishment at each stage of its life. Describe the external features of the larva.

10½

21. Make a labelled diagram of the reproductive system of an earthworm, and describe briefly the process of reproduction in this animal.

6

4½

How does the earthworm obtain its supply of oxygen ?

2

22. Write notes on the position and function of each of the following as found in dogfish or skate: gills, ventricle, spiracles, olfactory organs, spiral valve, dorsal aorta.

12½

23. Make a fully labelled diagram of the urinogenital organs of a male frog and show by arrows the route by which the nitrogenous waste material reaches the exterior. Why is excretion necessary ?

6½

Describe the appearance, position, and function of the fatty bodies in a frog.

Marks

3

How would you distinguish between (i) frog spawn and toad spawn, (ii) a frog and a toad?

3

24. Describe in detail how you would set up and maintain a fresh-water aquarium.

5

Name **three** animals which could suitably be kept together in it; name **two** animals which would attack these inhabitants (and must therefore be kept in a separate tank), and describe briefly their methods of attack.

7½

## SCIENCE

### HIGHER GRADE—(BOTANY)

Wednesday, 23rd March—1.0 P.M. to 3.0 P.M.

**FIVE** questions in all should be attempted.

Answers should, where possible, be illustrated by clear diagrams of reasonable size.

**N.B.**—Write legibly and neatly, and leave a space of about half an inch between the lines.

Marks will be deducted for bad spelling and bad punctuation, and for writing that is difficult to read.

*The value attached to each question, or to each part of a question, is shown in the margin.*

Marks

1. A normal root system anchors the plant and absorbs and translocates soil water. Write an account of the ways in which the general arrangement of root systems and the structure of individual roots are related to these functions.

17

Referring to named plants, state two other functions which may be performed by roots.

3

2. Describe fully experiments (one experiment for each)

(i) to measure the rate of growth of a slowly growing shoot,

5

(ii) to show that iron is necessary for the healthy growth of a plant.

7

Explain the importance of iron for plant growth. Name **three** other essential elements obtained from the soil and describe the effects on plants if they are deprived of them.

8

3. Write notes on :—

- (i) the mechanism and biological significance of leaf fall,
- (ii) the nutrition of mucor or mushroom,
- (iii) the origin and importance of humus,
- (iv) endosperm.

20

4. Describe the events leading to fertilization in spirogyra and in a fern.

14

In what respects is fertilization essentially similar in these plants ?

3

What are the reasons for the view that a filament of spirogyra may be regarded as a colony of unicellular plants ?

3

5. Write an account of the part played by light in the life of plants.

Describe some of the ways in which plants obtain the maximum amount of light. Give named examples and refer, where possible, to observations made in your field studies.

20

6. Either

(a) Trace briefly the development of Scots Pine from germination until seed production. (Describe the cones in some detail.)

20

Or

(b) Make fully labelled drawings to show the structure of a Brussels sprout, an onion, and a winter bud of horse-chestnut or other named deciduous tree.

8

In what ways are these structures fundamentally alike ? How are the respects in which they differ related to their special functions ?

10

Write a note on the *dormant buds* of trees.

2

7. Either

(a) What are the characteristics of the following fruits :—  
silique, drupe, caryopsis, aggregate of follicles ?

In each case name a plant which has such a fruit, state the family to which the plant belongs, and make a fully labelled drawing of the fruit.

20

Or

(b) List the floral characters of the Caryophyllaceae. Select a named member of this family and make a labelled drawing of its flower, cut lengthwise.

10

On an autumn walk you see a hedgerow plant which you think may belong to the Caryophyllaceae. What facts concerning its vegetative features and its fruits would lead you to this opinion ?

5

State one important difference in the flower structure of :—

- (i) Liliaceae and Amaryllidaceae,
- (ii) Ranunculaceae and Rosaceae,
- (iii) Labiatae and Scrophulariaceae.

5

## SCIENCE

## HIGHER GRADE—(CHEMISTRY)

Wednesday, 16th March—1.45 P.M. to 3.45 P.M.

Not more than **FIVE** questions should be attempted. Answers should, wherever possible, be illustrated by clear diagrams of reasonable size and supplemented by equations.

Question 7 (c) is based on work which is included in the old syllabus but not in the new.

**N.B.**—Write legibly and neatly, and leave a space of about half an inch between the lines.

Marks will be deducted for bad spelling and bad punctuation, and for writing that is difficult to read.

*The value attached to each question, or to each part of a question, is shown in the margin.*

**APPROXIMATE VALUES OF ATOMIC WEIGHTS WILL BE FOUND IN THE BOOK OF MATHEMATICAL TABLES.**

- |  | <i>Marks</i> |
|--|--------------|
| 1. Define <i>equivalent</i> , <i>atomic weight</i> , and <i>valency</i> of an element, and deduce the relation between them.   | 5            |
| Indicate three methods by which the equivalent of copper can be found, and describe <i>one</i> of them in detail.  | 7            |
| A metal forms a chloride which contains 79.8 per cent of chlorine. Calculate the equivalent of the metal.  |              |
| The vapour density of the chloride is 66.75. Find the atomic weight of the metal.  | 8            |
| 2. Describe the laboratory preparation of bromine.   | 7            |
| How may hydrobromic acid be prepared from bromine water?   | 4            |
| Choose <b>two</b> of the following substances, state the conditions under which bromine reacts with them, and name the products of the reactions: (i) hydrogen, (ii) ethylene, (iii) phosphorus.   | 4            |
| A white powder is known to be the bromide or iodide of sodium. Describe two tests by which you could identify it.  | 5            |
| 3. Describe how pure carbon monoxide may be obtained from carbon dioxide.  | 6            |
| How are (i) water gas, (ii) producer gas, manufactured?  | 4            |
| Deduce from theoretical considerations the approximate composition by volume of water gas and producer gas.  | 5            |
| A mixture of carbon monoxide and nitrogen, whose volume corrected to N.T.P. was 2 litres, was passed over copper oxide heated in a porcelain boat. The combined weight of the boat and its contents decreased by 0.36 gm. as a result of the reaction. Calculate the percentage of carbon monoxide by volume in the mixture. | 5            |
| 4. How would you prepare an aqueous solution of ammonia from an ammonium salt?   | 6            |

## Marks

Given anhydrous sodium carbonate and concentrated hydrochloric acid, how would you find the number of grams of ammonia in 1 litre of an aqueous solution of the gas ?

8

Ammonia gas was passed into 100 c.c. of normal hydrochloric acid for a short time. The volume was then made up to 250 c.c. with water, and 25 c.c. of the resulting solution required 20.5 c.c. of decinormal sodium hydroxide for neutralization. What weight of ammonia was passed in ?

6

5. How would you obtain pure samples of two of the allotropes of sulphur from roll sulphur ? How may it be shown that the two forms consist of one and the same element ?

9

Starting with sulphur, and using any other chemicals that may be necessary, indicate how you would prepare samples of (i) hydrogen sulphide, (ii) lead sulphide, (iii) sodium sulphate.

11

6. Describe the preparation in the laboratory of the following salts :—

(i) calcium carbonate from calcium chloride ;

4

(ii) ferric sulphate from ferrous sulphate ;

5

(iii) cupric chloride from copper ;

6

(iv) potassium nitrite from potassium hydroxide.

5

7. Answer (a) or (b) or (c) below :—

(a) Outline a method for the manufacture of sodium hydroxide from sodium chloride. What test could be applied to the product to ascertain whether it was free from chloride ?

10

How, and under what conditions, does sodium hydroxide react with (i) chlorine, (ii) sodium acetate, (iii) sodium bicarbonate, (iv) aluminium oxide ?

10

(b) Describe the preparation of methane in the laboratory.

7

How may methane be distinguished from hydrogen ?

3

20 c.c. of a gaseous hydrocarbon were mixed with 200 c.c. of oxygen in a eudiometer tube standing over mercury. When a spark was passed and the product was allowed to cool the resulting volume was 150 c.c. A little caustic potash solution was then admitted to the tube and the volume was reduced to 70 c.c. What is the molecular formula of the hydrocarbon ? Suggest two structural formulae for the compound.

10

(All volumes are measured under the same conditions of temperature and pressure.)

(c) Describe the preparation in the laboratory of ozonized oxygen. How may the percentage of ozone in a sample of ozonized oxygen be determined ?

10

What is the action of ozone on (i) potassium iodide solution, (ii) mercury, (iii) hydrogen peroxide ?

6

It was found that 100 c.c. of chlorine diffused through a porous plate in the same time as 122 c.c. of ozone. What information can be obtained concerning the formula of ozone from this observation ?

4

## SCIENCE

## HIGHER GRADE—(PHYSICS)

Friday, 18th March—9.15 A.M. to 11.45 A.M.

Not more than FIVE questions should be attempted. Questions which are based on work included in the old syllabus but not in the new are marked with an asterisk.

$g = 32 \text{ ft. per sec. per sec. or } 981 \text{ cm. per sec. per sec.}$

Answers should, wherever possible, be illustrated by clear diagrams of reasonable size.

*Mathematical tables will be supplied to those who desire them.*

N.B.—Write legibly and neatly, and leave a space of about half an inch between the lines.

Marks will be deducted for bad spelling and bad punctuation, and for writing that is difficult to read.

*The value attached to each question, or to each part of a question, is shown in the margin.*

## 1. Either

(a) Explain the terms *resultant* and *equilibrant* as applied to forces. 3

Describe how you would find experimentally the line of action, direction, and magnitude of the resultant of two unequal forces when the forces (i) act through a point and are perpendicular to one another, (ii) are parallel and unlike. 11

Calculate the results when the forces are 3 lb. wt. and 5 lb. wt. respectively, and in (ii) have their lines of action 5 in. apart. 6

Or

(b) State three "laws" of friction. 3

Describe an experiment to find the coefficient of kinetic (sliding) friction between two given surfaces. State the theory of your method. 8

A block of wood of mass 3 lb. rests on a board. When the board is tilted to an angle of  $20^\circ$  to the horizontal the block, once started, moves down the board with uniform velocity. When the angle is increased to  $25^\circ$  the block just starts to move from rest. If the angle is increased to  $30^\circ$  find—

(i) the least force acting parallel to the board which is necessary to keep the body at rest ; 5

(ii) the work done in moving the block uniformly 4 ft. up the board by a force acting parallel to the board. 4

2. (i) Write a short note indicating the difference between mass and weight. 2

Describe, stating any special precautions, an experiment to investigate the relation between the acceleration produced by a given force and the mass on which the force acts. Explain how you would use the observations made in the experiment to establish the relation. 8

(ii) **Either**

Marks

(a) What do you understand by the terms *potential energy* and *kinetic energy*? When has the bob of a simple pendulum (i) maximum velocity, (ii) maximum acceleration, (iii) maximum potential energy, (iv) maximum kinetic energy?

6

A simple pendulum 6 ft. long has a maximum displacement of  $10^\circ$ . Calculate the maximum acceleration and maximum velocity of the bob.

4

**Or**

\*(b) Establish the relation between mechanical advantage, velocity ratio, and efficiency of a machine.

4

Draw a sketch of a differential wheel and axle to show clearly the arrangement of the ropes.

In such a machine the radius of the wheel is one foot, and the radii of the axle parts are 5 in. and  $4\frac{1}{2}$  in. Calculate the effort necessary to raise a load of 144 lb., given that the efficiency for this load is 60 per cent.

6

3. Describe the making of a simple mercury barometer. Name two additional features shown by a Fortin barometer and explain their purpose.

8

Describe and explain what would happen to the level of the mercury in a simple barometer (i) if the temperature were raised, (ii) if a drop of water were allowed to enter the tube. Assume that the pressure of the atmosphere remains constant.

4

A uniform glass tube, closed at one end, has an internal cross-sectional area of 1 sq. cm., an internal length of 20 cm., and a mass of 20 gm. The tube is pushed vertically mouth downwards into water. Find the length of the air column at a depth of 10 metres.

3

Barometric height = 75 cm. of mercury.

Density of mercury = 13.6 gm. per c.c.

Depth to be reckoned as the distance between the surface of the water and the level of water in the tube.

Explain why the upthrust on the tube changes as it is lowered into the water, and find whether the tube will rise or sink when it is released at a depth of 10 metres.

Density of glass = 2.5 gm. per c.c.

5

**4. Either**

(a) Define *calorie*, *specific heat*.

3

Describe an experiment to find the specific heat of paraffin oil.

7

A liquid whose boiling point is  $90^\circ\text{C}$ . and specific heat 0.4 is purified by distillation. The vapour is passed through a condenser with running water in the jacket. The distillate leaves the condenser at  $30^\circ\text{C}$ . and at a steady rate of 16 gm. per minute. The water enters the condenser at  $10^\circ\text{C}$ . and leaves at  $30^\circ\text{C}$ ., the rate of flow being 100 gm. per minute. Calculate the latent heat of vaporization of the liquid.

6

List the similarities and differences between boiling and evaporation.

4

**Or**

(b) Explain what happens during the transference of heat by (i) conduction, (ii) convection. Suggest one reason why it is more difficult to set up convection currents in mercury than in water.

6

Describe a method used to determine the coefficient of linear expansion of copper. Show how to obtain the coefficient from the observations made in the experiment.

7

A copper vessel of capacity 1 litre at  $0^{\circ}\text{C}$ . is filled with glycerine at  $0^{\circ}\text{C}$ . The vessel is then heated to  $100^{\circ}\text{C}$ . Calculate the weight of glycerine which overflows.

7

Density of glycerine at  $0^{\circ}\text{C}$ . =  $1.26\text{ gm. per c.c.}$

Coefficient of linear expansion of copper =  $0.0000167\text{ per C. degree.}$

Coefficient of absolute (real) expansion of glycerine =  $0.00053\text{ per C. degree.}$

5. State the laws of reflection of light.

3

What is meant by (i) a real image, (ii) a virtual image?

3

Describe in detail and explain an experiment to find the radius of curvature of a concave spherical mirror.

6

An object  $0.5\text{ cm.}$  high, is placed at a distance of  $10\text{ cm.}$  from a spherical mirror and forms a real image twice the size of the object. Draw an accurate diagram to illustrate the formation of the image, and by measurement find the focal length of the mirror.

4

Where would the object have to be placed with respect to the same mirror in order to produce a virtual image twice the size of the object?

4

#### 6. Either

(a) An organ pipe, closed at one end, is sounding its fundamental note. Explain what is happening to the air in the pipe and deduce the relation between the frequency of vibration and the length of the air column in the pipe.

6

Describe and explain (i) an experiment to investigate the behaviour of the air throughout the length of the vibrating air column mentioned above, and (ii) an experiment to verify the relation between the frequency of vibration and the length of the air column.

9

An organ pipe emits a fundamental note of frequency 270 when it is open at both ends. Find the frequencies of its first two overtones when it is closed at one end.

5

#### Or

\*(b) Define *unit magnetic pole*, *magnetic intensity*.

4

Describe one method of finding the value of the horizontal component of the earth's magnetic field.

7

What is meant by magnetic declination?

2

Calculate the total intensity of the earth's field at a place where the horizontal component is  $0.20\text{ units}$ , and the angle of dip is  $65^{\circ}$ .

2

A bar magnet rests on a table in an east-west position and produces a deflection of  $45^{\circ}$  in a compass needle placed on the axis of the magnet and at some distance from it. When the bar magnet is replaced by another of the same dimensions the deflection of the compass needle is  $35^{\circ}$ . Calculate the ratio of the pole strengths of the magnets.

5

## Marks

7. State Faraday's laws of electrolysis, and describe an experiment to verify the law which relates to the masses of different substances liberated by the same quantity of electricity.

11

What changes take place in the electrodes and electrolyte of a lead accumulator when it is being charged?

3

A car battery consists of 6 lead accumulators each of internal resistance 0.05 ohm arranged in series. During the course of charging the battery from a constant voltage supply the e.m.f. of each cell rises from 1.8 volts to 2.2 volts. If the initial charging current is 10 amp. calculate the voltage which must be applied to the terminals of the battery, and the final charging current.

6

8. Define *coulomb* and *volt*.

3

A current of I amp. is passed through a resistance of R ohms. Derive an expression in terms of I and R for the *rate* at which heat is produced.

5

Describe in detail an experiment by which the relation may be verified.

7

An immersion heater which is used on a 240-volt supply raises the temperature of 1 litre of water from 15° C. to the boiling point in 5 min. Calculate the resistance of the heating coil and the current taken by it if 80 per cent of the heat produced is taken in by the water.

$$4.2 \text{ joules} = 1 \text{ calorie.}$$

5

9. Either

(a) Under what conditions is an e.m.f. induced in a circuit? State the law relating to the direction of the induced e.m.f. and describe an experiment to illustrate it.

7

A wire of length 10 cm. moves horizontally with a velocity of 20 metres per sec. across a uniform vertical magnetic field of flux density 5,000 lines per sq. cm. Calculate the potential difference (in volts) between the ends of the conductor.

4

With the aid of a labelled sketch explain how a step-down transformer works. Why is a transformer provided with an iron core?

9

Or

\*(b) Describe how you would use a potentiometer to compare the e.m.f. of a Leclanché cell with that of a Daniell cell. Your account should include an explanation of the underlying theory and of any experimental precautions.

8

State two reasons why the potentiometer method is more accurate than the direct use of a simple voltmeter for the above comparison.

4

Two cells arranged in series send a current through a circuit which contains a tangent galvanometer. The deflection of the galvanometer needle is 58° when the cells assist each other and 31° when they are in opposition. Explain how the ratio of the e.m.f.s of the cells may be obtained from these figures, and calculate it.

8

## SCIENCE

## HIGHER GRADE—(ZOOLOGY)

Friday, 18th March—1.0 P.M. to 3.0 P.M.

**FIVE** questions in all should be attempted.

Answers should, wherever possible, be illustrated by clear diagrams of reasonable size.

**N.B.**—Write legibly and neatly, and leave a space of about half an inch between the lines.

Marks will be deducted for bad spelling and bad punctuation, and for writing that is difficult to read.

*The value attached to each question, or to each part of a question, is shown in the margin.*

## 1. Either

Marks

(a) Make a large, fully labelled drawing of paramoecium and describe how the animal moves, feeds, and regulates the water content of its body. 14

List the resemblances and differences in structure between this animal and amoeba. How does amoeba resist drought? 6

## Or

(b) Make a large, fully labelled drawing of amoeba, and describe how the animal moves, feeds, and becomes dispersed to new habitats. Explain how it regulates its water content; what is the necessity for this? 10

Give **two** reasons why amoeba is classified as an animal and not as a plant. 2

Describe how hydra in an aquarium would probably react under each of the following conditions :—

- (i) violent vibration of the aquarium,
- (ii) one-sided illumination of the aquarium,
- (iii) contact with water fleas,
- (iv) a plentiful supply of food over a prolonged period. 8

2. Describe with the aid of clearly labelled diagrams how the structure of the lungs in a mammal is related to their function. Explain what happens to the air which is taken in. 10

By means of a labelled diagram of the **appropriate** parts of the blood system, trace the route by which (i) oxygenated blood is carried from the lungs to the liver, (ii) deoxygenated blood returns from the intestine to the lungs. 10

3. Write notes on the position and function of the following in a rabbit or other named mammal :—

- (i) salivary glands,
- (ii) colon,
- (iii) epiglottis. 8

Give an account of the part played by the mammalian stomach in the digestion of food and describe **two** simple illustrative experiments. 12

Marks

4. Draw a large, labelled diagram of the brain of a frog as seen in dorsal view, and state what you know of the function of each part.

6

Distinguish between a sensory and a motor nerve, and name the chief sensory cranial nerves found in a frog.

5

Describe the position, structure, and function of (i) the retina, (ii) the semi-circular canals, in a vertebrate.

9

5. Write notes on—

(i) the gills of a dogfish or skate,

(ii) the nervous system of an earthworm,

(iii) the hind leg of a frog,

(iv) the egg and fry of a trout (or a salmon),

(v) the egg capsule of a cockroach.

20

6. List the essential differences in structure, (i) between Arthropods and Annelids, (ii) between Annelids and Coelenterates.

10

Why is cockroach considered to be more advanced than earthworm, and earthworm more advanced than hydra, as regards respiration and locomotion.

10

7. Either

(a) Choose any five of the following animals and describe how each is adapted to its mode of life :—newt, a named parasitic worm, bat, mosquito larva, red deer, limpet, starfish.

20

Or

(b) Give a brief description of any particular habitat you have studied and state where it is. Select **four** animals (not all from the same phylum) which you have found there and describe their habits and food relations. (Your choice should not include protozoa, hydra, earthworm, or frog.)

20

## SCIENCE—ENGINEERING

HIGHER GRADE—(APPLIED MECHANICS AND HEAT ENGINES)

Monday, 21st March—9.15 A.M. to 11.15 A.M.

Candidates should attempt **FIVE** questions.

*When candidates use a formula they must explain each symbol. Units must always be stated.*

Take  $\pi = \frac{22}{7}$ , and  $g = 32 \text{ ft. per sec. per sec.}$

*Square-ruled paper and four-place logarithmic tables are provided.*

**N.B.**—Write legibly and neatly, and leave a space of about half an inch between the lines.

Marks will be deducted for bad spelling and bad punctuation, and for writing that is difficult to read.

*20 marks are assigned to each question.*

1. Figure 1 shows five coplanar members of a framed structure. The forces on four of the members are also shown.

Determine analytically the magnitude and nature of the force acting on the fifth member and the value of the angle  $\theta$ .

Check your results graphically. (Scale : 1 in. represents 20 tons.)

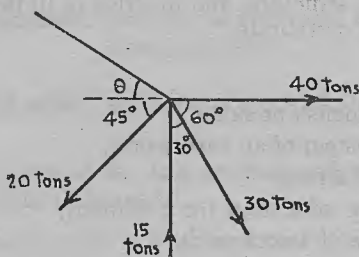


FIG. 1

2. What is meant by *factor of safety*?

A 3 in. by  $2\frac{1}{2}$  in. by  $\frac{1}{2}$  in. angle bar tie is fixed to the rest of the structure by means of a  $\frac{5}{8}$  in. plate, five  $\frac{3}{4}$  in. dia. and two  $\frac{7}{8}$  in. dia. rivets as shown in Figure 2.

If the pull in the tie is  $10\frac{5}{8}$  tons, determine—

- the shear stresses in the rivets (to the nearest ton per sq. in.);
- the stress in the angle bar at section XX;
- the stress in the plate at section YY;
- the factor of safety of the joint if the ultimate strengths are 24 tons per sq. inch in shear and 32 tons per sq. inch in tension.

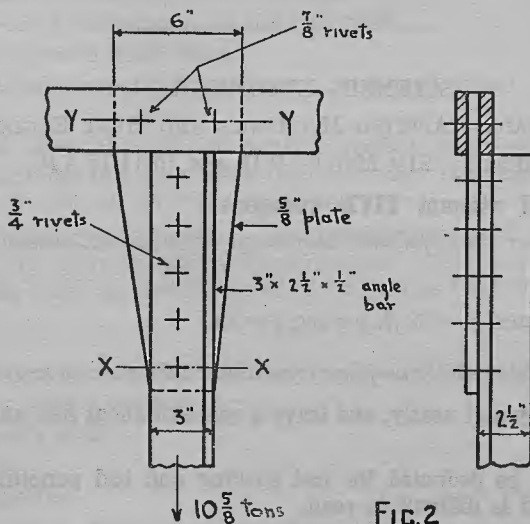


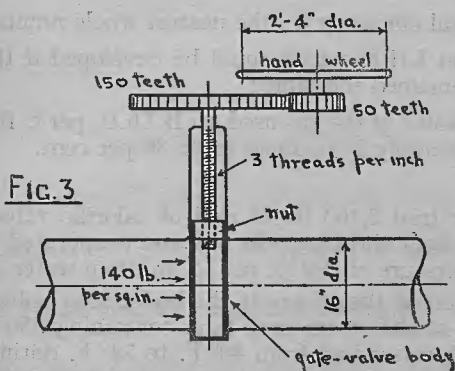
FIG. 2

3. A stop valve for a hydraulic main of 16 in. dia. is of the sliding-gate type operated by a screw and nut, gear wheels and hand wheel as shown in Figure 3. The combined efficiency of the screw and gearing is 32 per cent.

The valve body weighs 110 lb. and when the valve is closed it is subjected to a pressure of 140 lb. per sq. in. on one face only. The coefficient of friction between the valve and the guides is 0.1.

Determine—

- the speed (in inches per minute) at which the valve will open when the hand wheel is rotated at 30 revs. per minute;
- the tangential force required on the rim of the hand wheel in order to open the valve.



4. Define *kinetic energy*.

- If a body weighing  $W$  lb. has its velocity reduced from  $v_1$  to  $v_2$  ft. per sec. by a force of  $P$  lb. acting through  $s$  ft., write down the equation connecting the change of energy of the body with the work done by the force.
- A truck weighing 20 tons has a tractive resistance of 10 lb. per ton and is moving at 20 ft. per sec. at the foot of an upward gradient of 1 in 40. From this point a draw-bar pull of 620 lb. is applied to the truck.
  - What is the kinetic energy of the truck at the foot of the incline?
  - What is the effective force acting on the truck as it moves up the incline?
  - How far will it travel up the incline before its velocity is reduced to 10 ft. per sec.?
  - If, when the velocity is reduced to 10 ft. per sec., the draw-bar pull is increased to 970 lb., how much farther will the truck go before it comes to rest?

5. Make a diagrammatic sketch of any type of engine indicator and state the precautions you would take to obtain a satisfactory diagram.

If the length of an indicator diagram is 3 in. and its area 2.85 sq. in., what will be the mean effective pressure if the spring is No. 60 and what will be the height in inches of a normal atmospheric pressure line above the zero pressure line?

6. Draw a typical indicator diagram for a four-stroke cycle gas engine.

The following observations were made during a test of a gas engine having a cylinder of 9 in. dia. and 15 in. stroke :—

Mean effective pressure, 112 lb. per sq. in.	Speed, 210 r.p.m.
Firing strokes per min., 88.	Dia. of brake wheels (two),
Load on each brake, 100 lb.	5 ft.
Gas consumption, 420 c. ft. per hour.	Spring balance readings, 10 lb.

Determine—

- the I.H.P. of the engine ;
- the B.H.P. ;
- the mechanical efficiency (to the nearest whole number) ;
- the maximum I.H.P. which could be developed if the mean effective pressure remained the same ;
- the calorific value of the gas used (in B.Th.U. per c. ft.) if the indicated thermal efficiency is assumed to be 30 per cent.

7. During a boiler trial 2,100 lb. of coal of calorific value 14,000 B.Th.U. per lb. were fired per hour and 18,000 lb. of water evaporated per hour. Steam was generated at a pressure of 180 lb. per sq. in. from water at 70° F.

The dryness fraction of the steam at the boiler stop valve was determined by condensing 8 lb. of the steam in a tank containing 350 lb. of water, the temperature of which was raised from 48° F. to 74° F. during the test.

The steam from the boiler was then passed through a superheater in which its temperature was raised to 600° F.

Determine—

- the dryness fraction of the steam at the boiler stop valve ;
- the thermal efficiency of the combined boiler and superheater ;
- the diameter of the pipe from the superheater if the speed of the steam is limited to 60 ft. per sec. (You may leave this answer in the form of a square root.)

$p$ lb. per sq. in.	$t$ temp. °F.	$h$ B.Th.U.	$L$ B.Th.U.
180	372	346	857

Mean specific heat of superheated steam = 0.5.

$$\text{Specific volume of superheated steam} = \frac{1.25 (H - 835)}{p} \text{ c. ft.,}$$

where  $H$  = the total heat of the steam.

8. The oil consumed in a boiler furnace has the following percentage composition by weight :—

carbon 84 ; hydrogen 16.

Calculate—

- the Higher Calorific Value of the fuel ;
- the theoretical weight of air required for the complete combustion of 1 lb. of fuel ;

- (c) the weight of the products of combustion per lb. of fuel used ;  
 (d) the percentage ratio of the weight of these products to the total weight of the flue gases if 25 per cent. excess air is used and there is complete combustion.

Calorific values (B.Th.U. per lb.) : carbon 14,500 ; hydrogen 62,000.

Molecular weights : carbon 12 ; hydrogen 2 ; oxygen 32.

## TECHNICAL SUBJECTS

### LOWER GRADE—(APPLIED MECHANICS)

Monday, 21st March—9.15 A.M. to 10.45 A.M.

**Not more than FOUR questions should be attempted.**

*When candidates use a formula they must explain each symbol. Units must always be stated.*

Take  $\pi = \frac{22}{7}$ .

*Square-ruled paper and four-place logarithmic tables are provided.*

**N.B.—Marks will be deducted for bad spelling and bad punctuation, and for writing that is difficult to read.**

*25 marks are assigned to each question.*

1. What do you understand by *the principle of work* ?

A train weighing 320 tons runs along a level track and passes two points 880 yards apart in one minute. The tractive resistance is 15 lb. per ton.

Calculate—

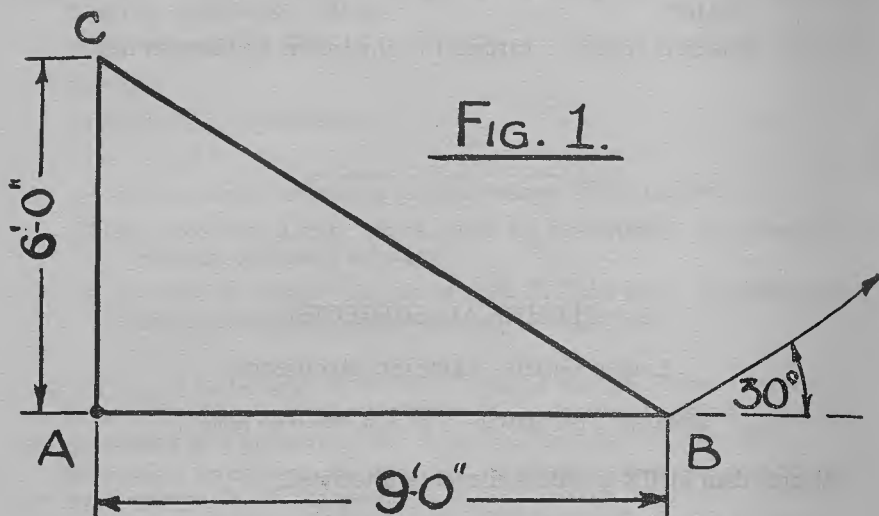
- (a) the horse-power ;  
 (b) the braking force in lb. per ton if 256,000 ft. lb. of work are expended in stopping the train in a distance of 100 ft.

2. Define *the moment of a force about a point* and state *the principle of moments*.

A triangular plate of uniform thickness weighing 100 lb. is hinged at A and is held by a rope at B so that the edge AB is horizontal as shown in Figure 1.

Determine—

- (a) the force in the rope ;
- (b) the reaction at A in magnitude and direction.



3. Explain the terms *velocity ratio* and *mechanical advantage*.

A screw jack has a pitch of  $\frac{1}{2}$  in. and a velocity ratio of 176. What is the effective radius of the handle ?

If an effort of 10 lb. lifts a load of 440 lb., what is the efficiency at this load ?

Find the effort required to lift a load of  $\frac{3}{4}$  ton if the efficiency at this load is 30 per cent.

4. Sketch, and state briefly the characteristics of, an indicator diagram for a four-stroke cycle petrol engine.

A four-stroke motor car petrol engine has four cylinders, each of which is  $2\frac{1}{4}$  in. bore and 3 in. stroke. At 2,000 revs. per minute the engine develops 18 I.H.P. and consumes 9 lb. of petrol per hour of calorific value 20,000 B.Th.U. per lb.

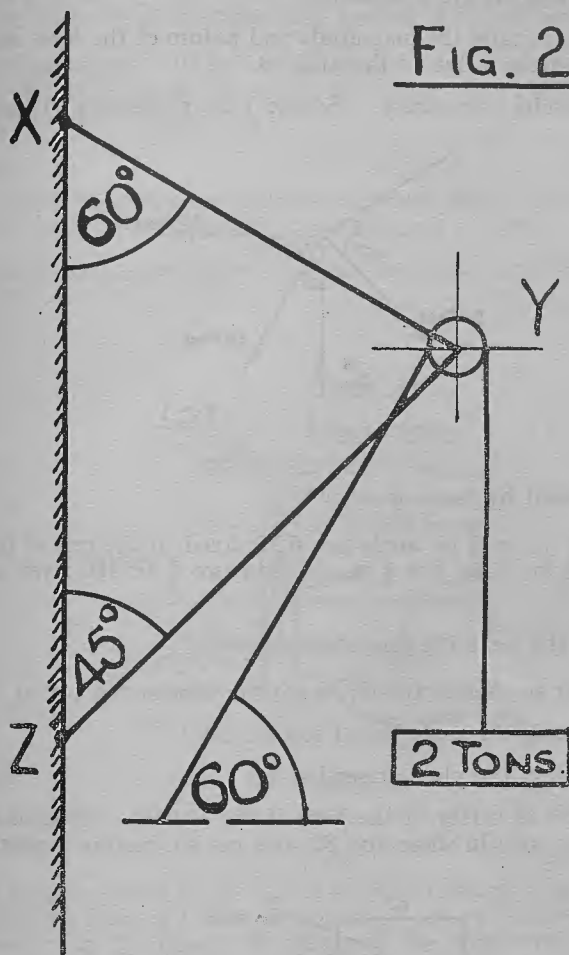
Determine—

- (a) the mean effective pressure on the pistons ;
- (b) the indicated thermal efficiency.

5. Figure 2 shows part of the outline of a hoisting machine.

Determine the magnitude and nature of the forces in the members XY and YZ. (Scale : 1 in. represents 1 ton.)

The pulley pin is  $1\frac{1}{2}$  in. dia. and is in double shear. Calculate the shear stress in the pin in tons per sq. in.



### TECHNICAL SUBJECTS

#### HIGHER GRADE—(APPLIED MECHANICS)

Monday, 21st March—9.15 A.M. to 11.15 A.M.

Not more than FIVE questions should be attempted.

When candidates use a formula they must explain each symbol. Units must always be stated.

Take  $\pi = \frac{22}{7}$ , and  $g = 32$  ft. per sec. per sec.

Square-ruled paper and four-place logarithmic tables are provided.

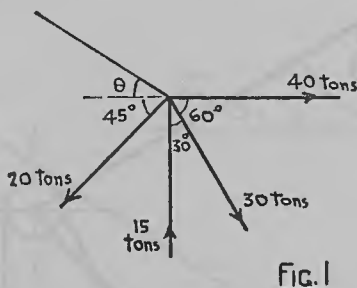
N.B.—Marks will be deducted for bad spelling and bad punctuation, and for writing that is difficult to read.

20 marks are assigned to each question.

1. Figure 1 shows five coplanar members of a framed structure. The forces on four of the members are also shown.

Determine analytically the magnitude and nature of the force acting on the fifth member and the value of the angle  $\theta$ .

Check your results graphically. (Scale : 1 in. represents 20 tons.)

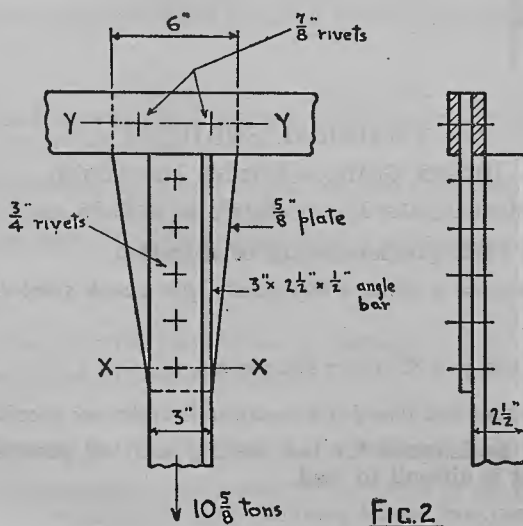


2. What is meant by *factor of safety* ?

A 3 in. by  $2\frac{1}{2}$  in. by  $\frac{1}{2}$  in. angle bar tie is fixed to the rest of the structure by means of a  $\frac{5}{8}$  in. plate, five  $\frac{3}{4}$  in. dia. and two  $\frac{7}{8}$  in. dia. rivets as shown in Figure 2.

If the pull in the tie is  $10\frac{5}{8}$  tons, determine—

- the shear stresses in the rivets (to the nearest ton per sq. in.);
- the stress in the angle bar at section XX;
- the stress in the plate at section YY;
- the factor of safety of the joint if the ultimate strengths are 24 tons per sq. inch in shear and 32 tons per sq. inch in tension.

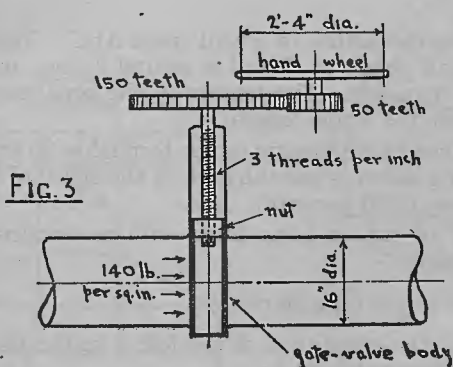


3. A stop valve for a hydraulic main of 16 in. dia. is of the sliding-gate type operated by a screw and nut, gear wheels and hand wheel as shown in Figure 3. The combined efficiency of the screw and gearing is 32 per cent.

The valve body weighs 110 lb. and when the valve is closed it is subjected to a pressure of 140 lb. per sq. in. on one face only. The coefficient of friction between the valve and the guides is 0.1.

Determine—

- the speed (in inches per minute) at which the valve will open when the hand wheel is rotated at 30 revs. per minute;
- the tangential force required on the rim of the hand wheel in order to open the valve.



4. Define *kinetic energy*.

- If a body weighing  $W$  lb. has its velocity reduced from  $v_1$  to  $v_2$  ft. per sec. by a force of  $P$  lb. acting through  $s$  ft., write down the equation connecting the change of energy of the body with the work done by the force.
- A truck weighing 20 tons has a tractive resistance of 10 lb. per ton and is moving at 20 ft. per sec. at the foot of an upward gradient of 1 in 40. From this point a draw-bar pull of 620 lb. is applied to the truck.
  - What is the kinetic energy of the truck at the foot of the incline?
  - What is the effective force acting on the truck as it moves up the incline?
  - How far will it travel up the incline before its velocity is reduced to 10 ft. per sec.?
  - If, when the velocity is reduced to 10 ft. per sec., the draw-bar pull is increased to 970 lb., how much farther will the truck go before it comes to rest?

5. When is work done by a force? How is the work done measured?

A helical spring requires a force of 100 lb. to compress it by one inch from its free length.

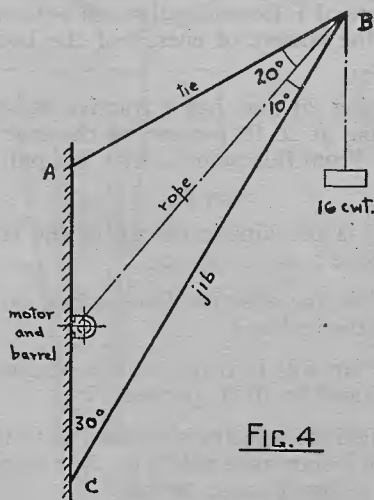
- If it is compressed by 4 in. from its free length, how much work has been done on the spring in in. lb.? Sketch the work diagram.
- How much work was done in compressing it through the last inch? Show this in the work diagram.
- If the spring is now released by 2 in., what is the net amount of work that has been done on the spring? Show this in the work diagram.
- What compression from its free length will the spring have after 312½ in. lb. of work have been expended on it?

6. Figure 4 shows the outline of a wall crane ABC. The rope from the load passes round a small pulley at B and is wound round, and fixed to, a barrel of 10 in. effective diameter. The tension in the rope may be assumed to be constant throughout the whole length.

The barrel is driven by an electric motor through a 30 to 1 reduction gearing (*i.e.* the speed of the barrel is one-thirtieth of the speed of the motor) having a mechanical efficiency of 70 per cent.

When a load of 16 cwt. is being lifted with an acceleration of 0.5 ft. per sec. per sec., determine—

- the tension in the rope, in cwt.;
- graphically, the magnitude of the forces in the jib and the tie (scale: 1 in. represents 10 cwt.);
- the speed in revs. per minute of the motor when the hoisting speed is 2.2 ft. per sec.;
- the B.H.P. of the motor at this speed.



7. A structure carrying transmission cables is loaded as shown in Figure 5. The small accompanying diagram shows the two ties and the two struts which make up the cantilever part ABC. The weight of the structure itself may be neglected.

Determine—

- the magnitude and the line of action of the resultant load on the structure ;
- the reaction on each of the pairs of legs at P and Q ;
- the forces in the four members of the cantilever ABC. (Scale : 1 in. represents 400 lb.)

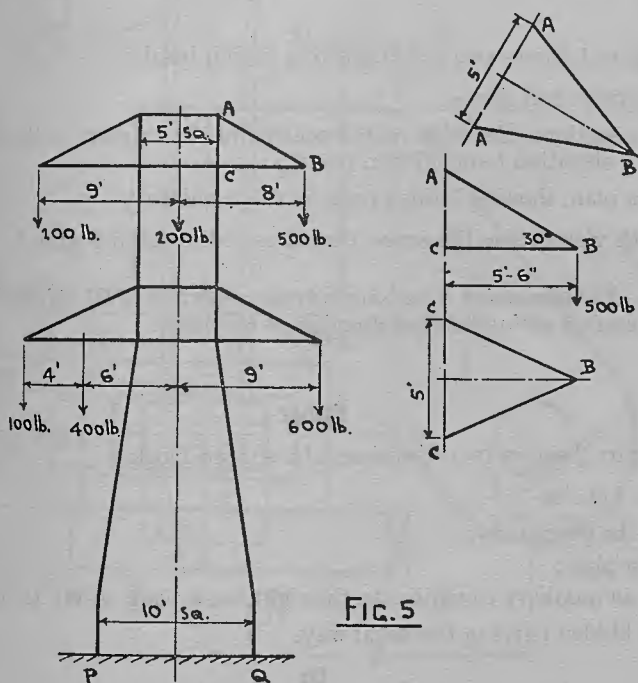


FIG. 5

## TECHNICAL SUBJECTS

## LOWER GRADE—(TECHNICAL DRAWING)

Wednesday, 23rd March—1.0 P.M. to 3.0 P.M.

**Question 1** should be attempted and either **Question 2** or **Question 3**. The Figures are on a separate paper.

**Both sides of the drawing paper should be used.**

*The value attached to each question is shown in brackets after the question.*

1. Figure 1 shows two elevations of a cramp head.

Draw, twice full size—

(a) a sectional elevation on the centre line AA in place of the given front elevation (omit hidden parts) ;

(b) a plan, showing hidden parts in the usual way.

In both views show the screw thread as indicated in Figure 1.

*N.B.—The dimension 5 in. shown to the centre line of the spindle in Figure 1 gives a convenient setting for your drawing on the paper.* (60)

**Either**

2. Figure 2 shows two elevations of a shaped block.

Draw, full size—

(a) the given views ;

(b) a plan ;

(c) an auxiliary elevation, to the right, on a plane at  $60^\circ$  to the 1st V.P.

Show hidden parts in the usual way. (40)

**Or**

3. Figure 3 shows part of the development of the curved surface of a cone and the elevation of the cone. The circle on the development represents a paper disc pasted on the surface of the cone.

Draw, twice full size—

(a) the given part development ;

(b) the elevation showing the outline of the disc. (40)

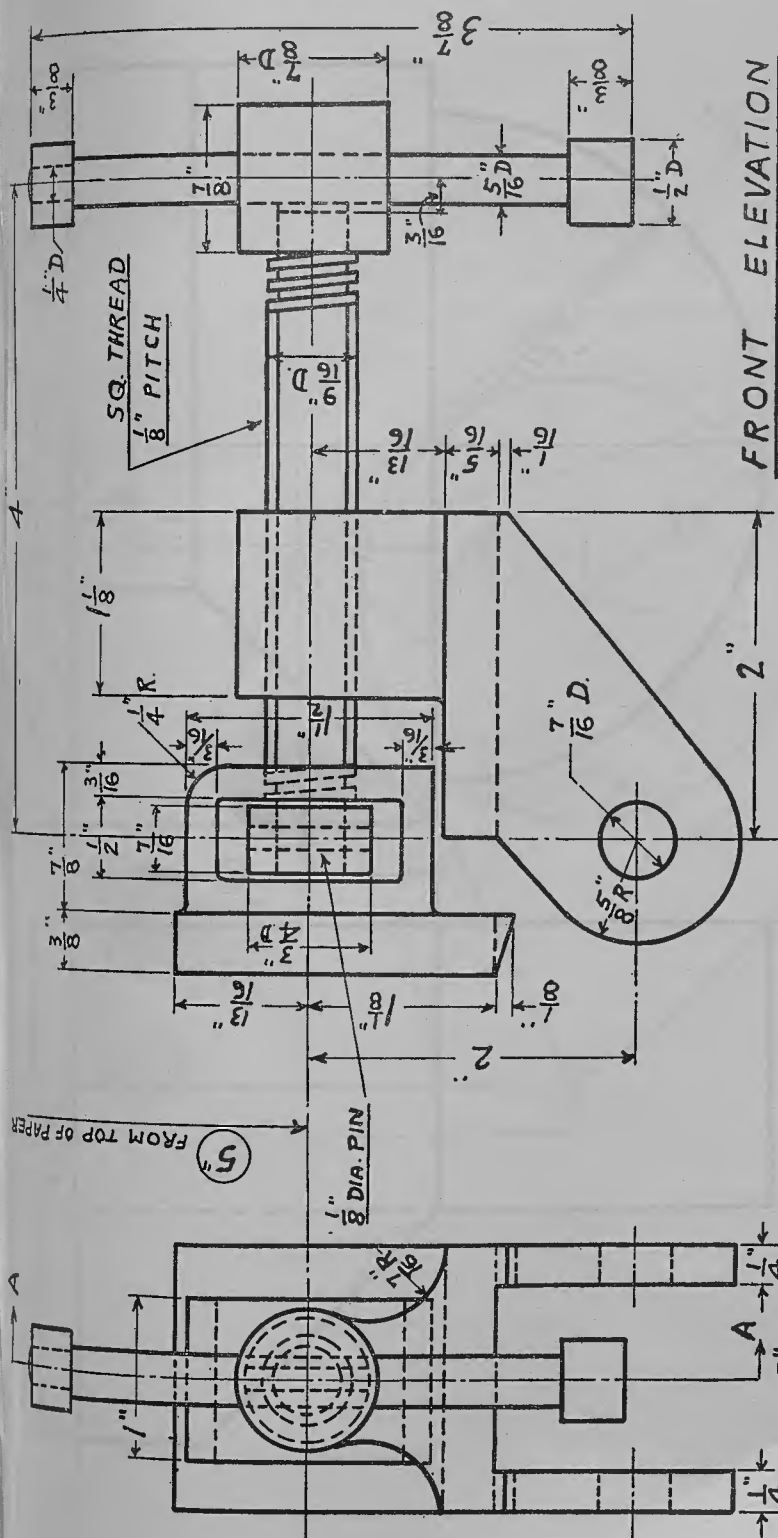


FIG. 1

END ELEVATION

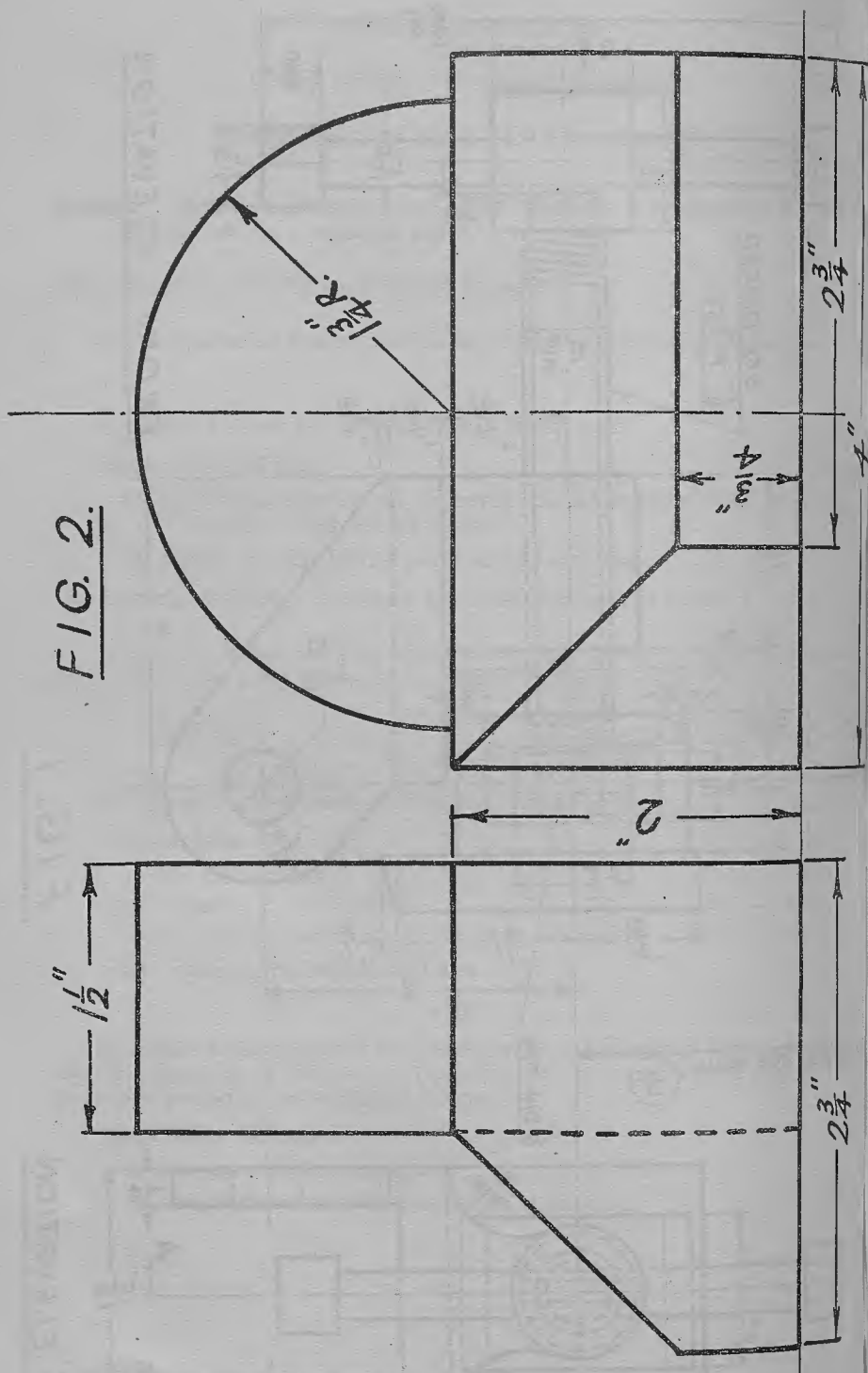
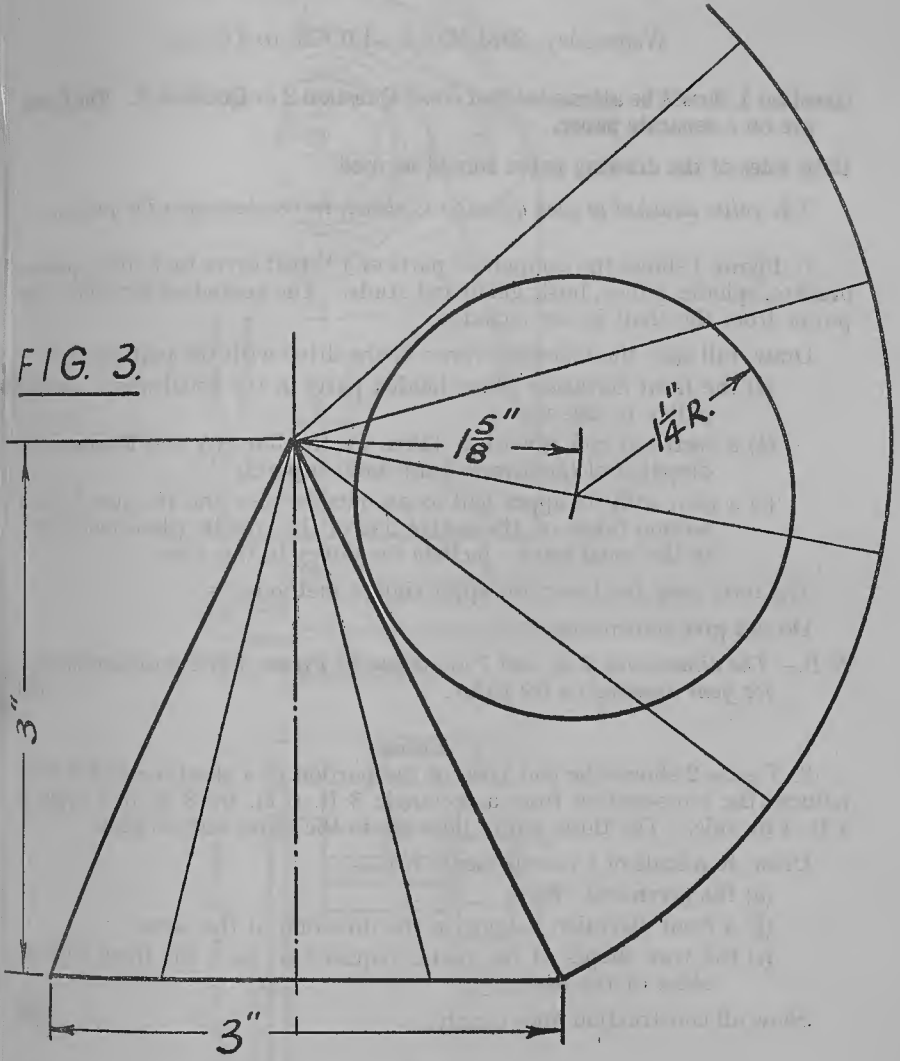
FIG. 2.

FIG. 3.



## TECHNICAL SUBJECTS

## HIGHER GRADE—(TECHNICAL DRAWING)

Wednesday, 23rd March—1.0 P.M. to 4.0. P.M.

**Question 1 should be attempted and either Question 2 or Question 3. The Figures are on a separate paper.**

**Both sides of the drawing paper should be used.**

*The value attached to each question is shown in brackets after the question.*

1. Figure 1 shows the component parts of a V-belt drive for a rotary pump—bracket, spindle, pulley, bush, gland and studs. The gearwheel for transmitting power from the shaft is not included.

Draw, full size, the following views of the drive with the parts assembled—

- (a) the front elevation (show hidden parts in the usual way); omit the pulley in this view;
- (b) a sectional end elevation, taken on the line AA and looking in the direction of the arrows (omit hidden parts);
- (c) a plan with its upper half as an outside view and its lower half as a section taken on the centre line of the spindle (show hidden parts in the usual way); include the pulley in this view.

The nuts may be drawn by approximate methods.

Do not give dimensions.

*N.B.—The dimensions 5 in. and 7 in. shown in Figure 1 give a convenient setting for your drawing on the paper.* (65)

**Either**

2. Figure 2 shows the end view of the portion of a sheet-metal duct which reduces the cross-section from a rectangle 3 ft. 6 in. by 3 ft. to a square of 1 ft. 4 in. side. The three centre lines are in the same vertical plane.

Draw, to a scale of 1 in. represents 1 ft.—

- (a) the given end view;
- (b) a front elevation looking in the direction of the arrow;
- (c) the true shapes of the plates required to form the front, back and sides of the duct.

Show all construction lines clearly.

(35)

**Or**

3. Figure 3 shows the elevation of a square pyramid, 9 in. edge of base, 10½ in. high, with a semi-circular part machined out of it.

Draw, half size—

- (a) the given elevation;
- (b) a plan;
- (c) an end elevation.

Show all construction lines clearly.

(35)

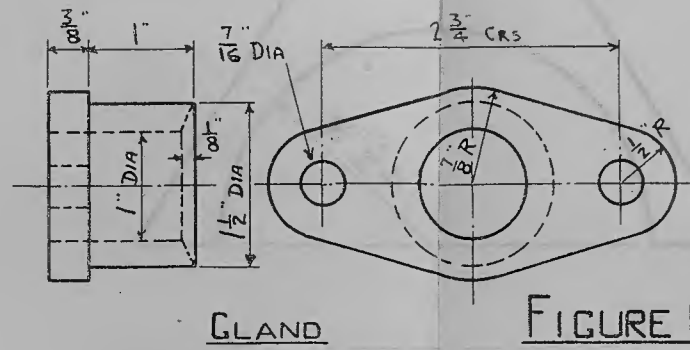
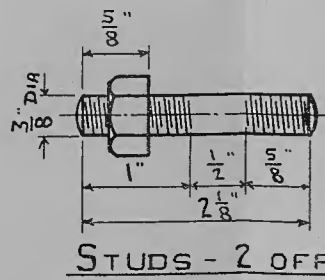
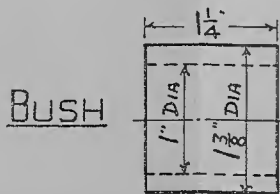
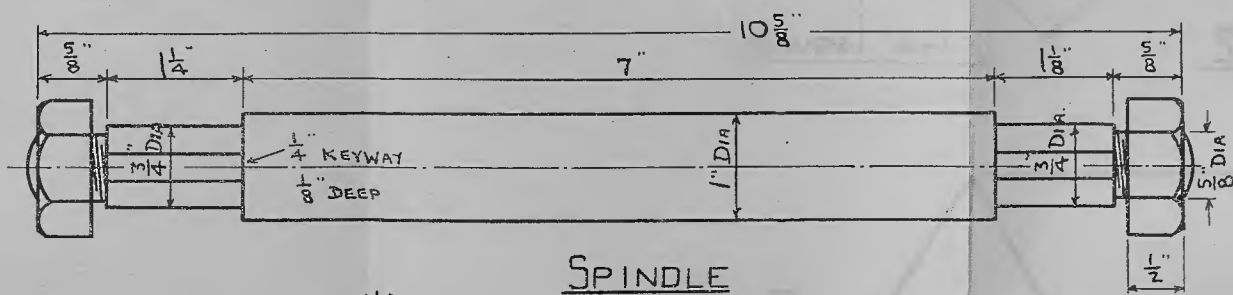
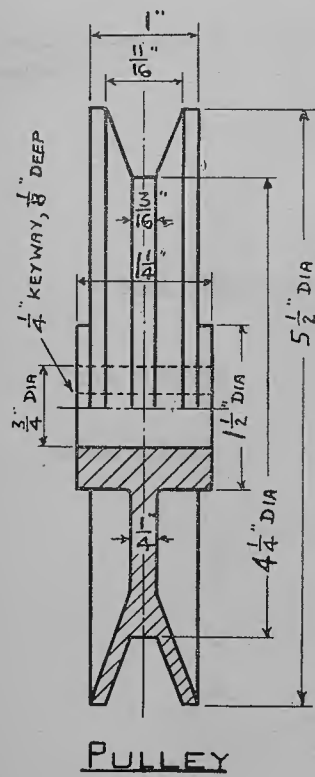
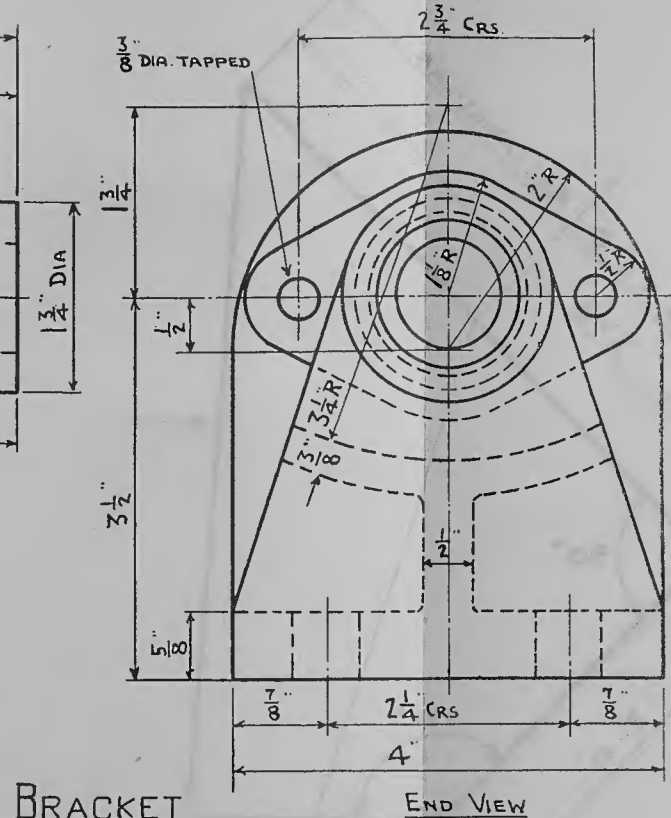
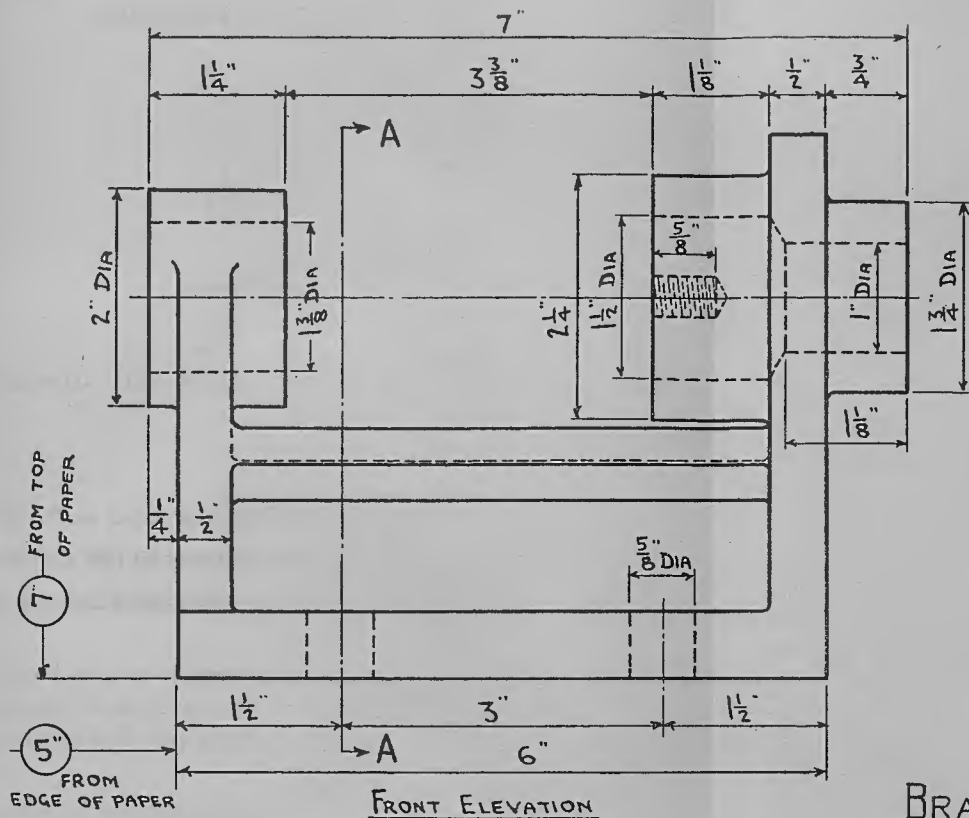


FIGURE 1

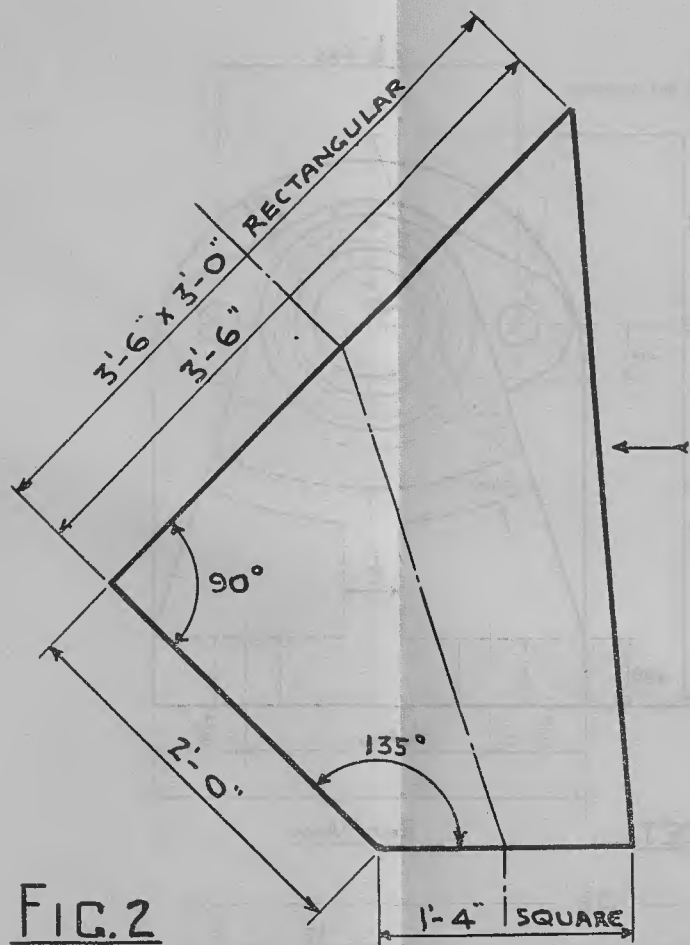


FIG. 2

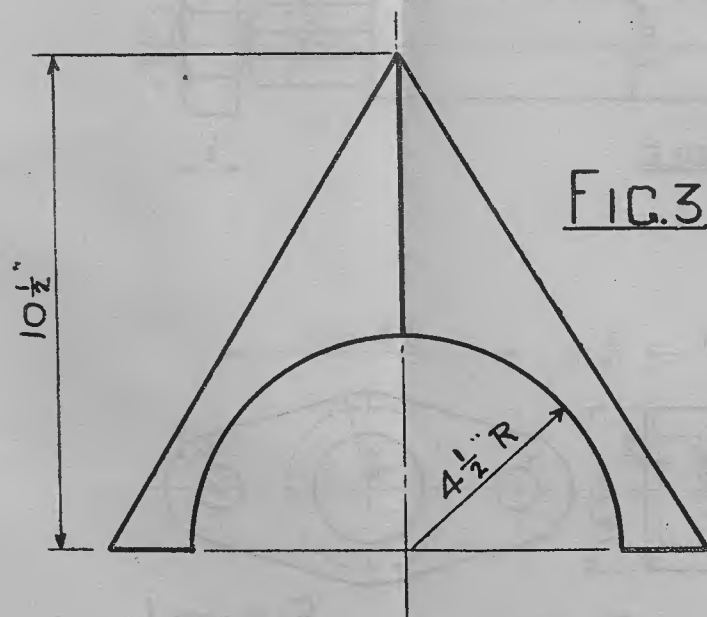


FIG. 3

## MUSIC

## LOWER GRADE

Wednesday, 16th March—9.30 A.M. to 11.30 A.M.

**N.B.**—Write in ink. Care must be taken to make the notation clear ; notes indistinctly placed will be regarded as wrong. Marks will be deducted for bad spelling and bad punctuation, and for writing that is difficult to read.

*The answers to Section I must be written in the space provided on this examination paper, which must be given up with the examination book. The ruled pages in the examination book may be used for rough work on these questions.*

*The answers to Section II are to be written in the examination book provided.*

*The value attached to each question, or to each part of a question, is shown in brackets after the question.*

**FILL THIS IN FIRST**

Number of seat occupied at examination.

Name of School.....

Name of Pupil .....

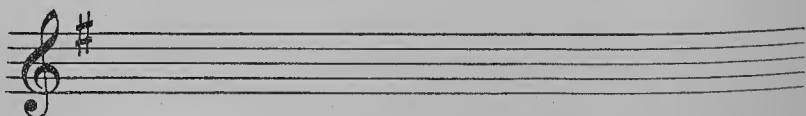
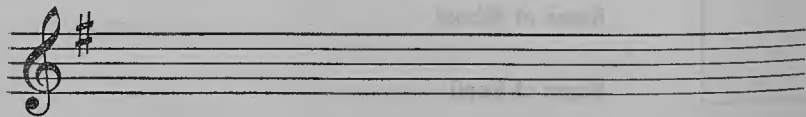
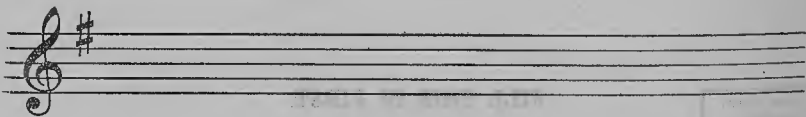
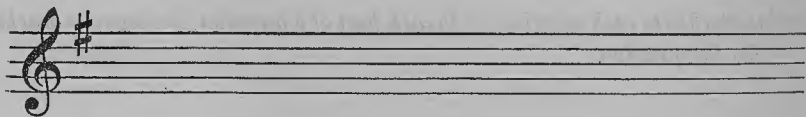
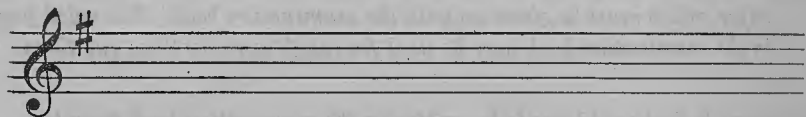
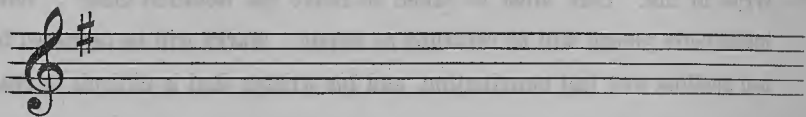
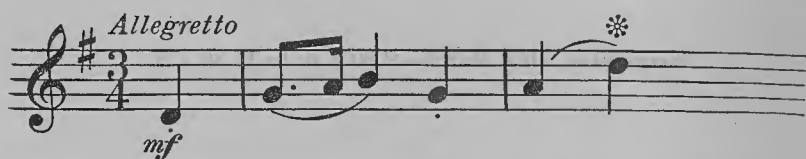
## SECTION I

ALL the questions in this section should be attempted.

1. Continue the following to make a melody of not less than eight bars in length, ending on the tonic.

The note marked \* may be of any length.

(22)



2. Write in staff notation a melody suitable for singing to **one** of the following stanzas. Place each syllable of the words below the note or notes to which it is to be sung. Add a musical term to indicate tempo or mood, and insert expression marks where necessary. Words or phrases may be repeated.

" My eyes for beauty pine,  
My soul for Goddès grace ;  
No other care nor hope is mine  
To heaven I turn my face."

*Bridges.*

**OR**

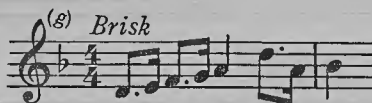
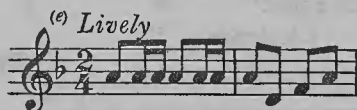
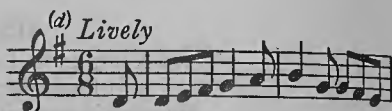
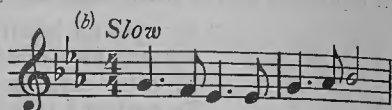
" Old Noah he had an ostrich farm  
and fowls on the largest scale,  
He ate his egg with a ladle  
in an egg-cup big as a pail."

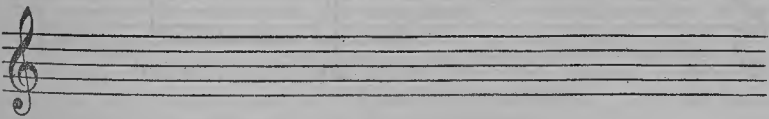
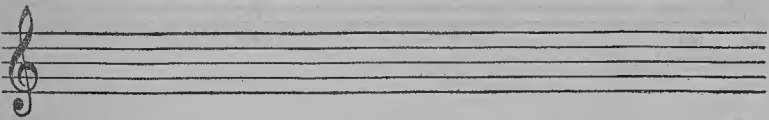
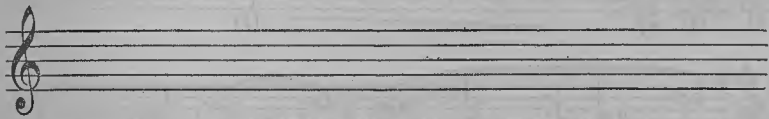
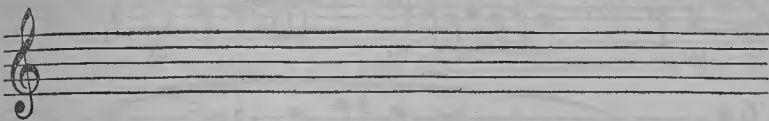
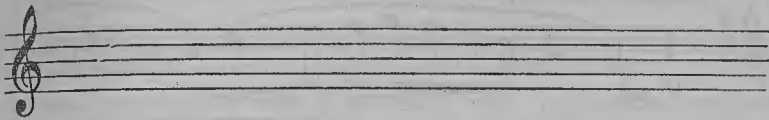
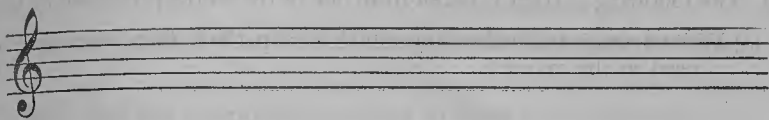
*Chesterton.*

(24)



3. The opening phrase from each of seven well-known melodies is given below. Write in staff notation the whole of any **one** of them. (12)





4. The following extract is taken from one of the works prescribed for study.

- (a) Write bars 6-10 in the key which is a perfect fifth lower than that used in the extract. (8)

*Andante sostenuto*

(1) *mf* (2) (3) (4) (5) (6) *mf* (7) (8) (9) *p* (10) *dim.*

(6) (7)

(8) (9) (10)

- (b) Insert the time signature at the beginning of the extract. (1)

- (c) Give the title, composer, and date of the composition from which this extract is taken. (2)

(Answer) .....

- (d) What instrument plays this passage in the original composition? (1)

(Answer) .....

(Total marks = 12)

## SECTION II

Answer question 8 and **ONE** other question from this section.

5. Write brief but comprehensive notes on **three** of the following :—  
madrigal ; continuo ; recitative ; clarinet ; lied ; tone-poem. (15)

6. (a) Tabulate the exposition of sonata-rondo form. (6)

(b) Name one composer who is associated with the classical symphony ; name one composer who is associated with the classical concerto ; name one composer who is associated with the symphonic poem ; and state when each of them lived. (4½)

(c) Write in staff notation a few bars from a typical work by **one** of the composers you have named. (4½)

(Do not quote any of the extracts printed on this paper.)

(Total marks = 15)

7. (a) What is opera ? Mention the various kinds of opera. Confine your answer to a paragraph of about 12–15 lines. (6)

(b) Name one composer who wrote operas in the 17th century ; name one composer who wrote operas in the 18th century ; name one composer who wrote operas in the 19th century ; and give the title of one opera composed by each. (4½)

(c) Write in staff notation a few bars of melody from **one** of the operas you have mentioned. (4½)

(Do not quote any extract printed on this paper.)

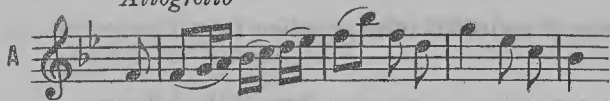
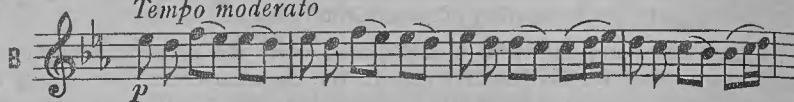
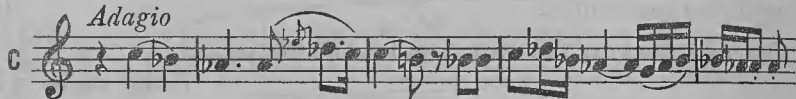
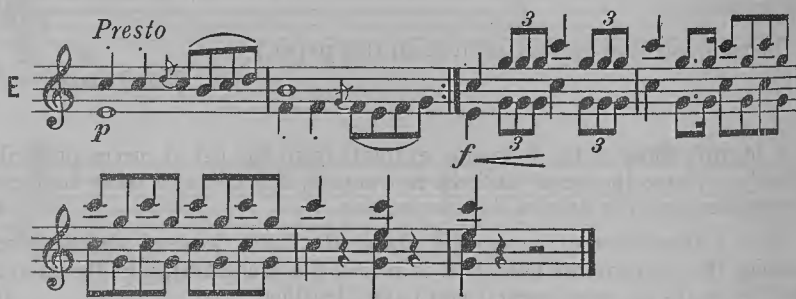
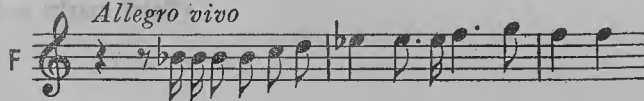
(Total marks = 15)

8. Identify **three** of the following extracts from the list of pieces prescribed for study. Name the work (and the movement, if it contains more than one), the composer, and the date of its composition. (6)

Write a short factual paragraph about the form, general characteristics (including the instruments used if it is scored for orchestra), and the mood of **one** of the works (or movements) you have identified. (4½)

Quote a few bars of one principal theme, other than the theme you have identified, from the work (or movement) you have selected. (4½)

(Total marks = 15)

*Allegretto**Tempo moderato**Adagio**Quick**Presto**Allegro vivo*

## MUSIC

## HIGHER GRADE—(FIRST PAPER)

Wednesday, 16th March—9.30 A.M. to 11.15 A.M.

N.B.—Write in ink, clearly and legibly. Care must be taken to make the notation clear ; notes indistinctly placed will be regarded as wrong.

*All the answers to this paper are to be written in the spaces provided in this examination paper, which must be given up with all sheets of manuscript music paper used for rough working attached to it.*

In order to obtain a pass in the whole examination, candidates must satisfy the examiners in this paper.

*The value attached to each question, or to each part of a question, is shown in brackets after the question.*

Number of seat occupied at examination.

## FILL THIS IN FIRST

Name of School.....

Name of Pupil .....

## PAPER I

All candidates should attempt from this paper **THREE** questions and three only, of which numbers 1 and 2 are compulsory.

1. Write in staff notation a melody suitable for singing to **one** of the following stanzas. Add a musical term to indicate tempo or mood, and insert expression marks. Place each syllable of the words below the note or notes to which it is intended to be sung. Words or phrases may be repeated if desired. Indicate the cadences by placing on the bass stave the two notes necessary to define them ; you may figure these bass notes if you wish.

“ At morning and at evening both,  
You merry were and glad,  
So little care of sleep or sloth  
Those pretty ladies had.  
When Tom came home from labour,  
Or Cis from milking rose,  
Then merrily went their tabor,  
And nimbly went their toes.”

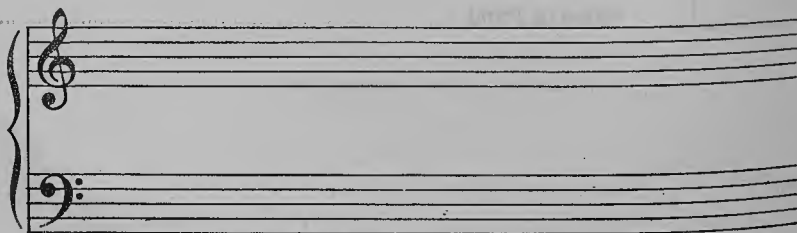
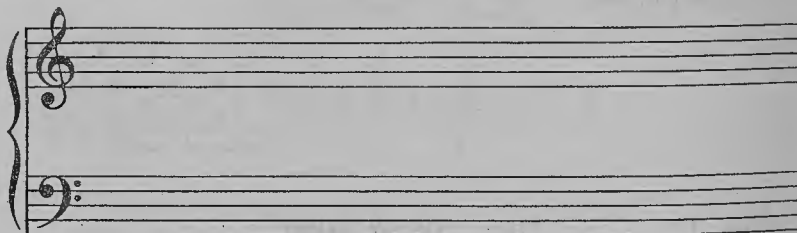
*Corbet.*

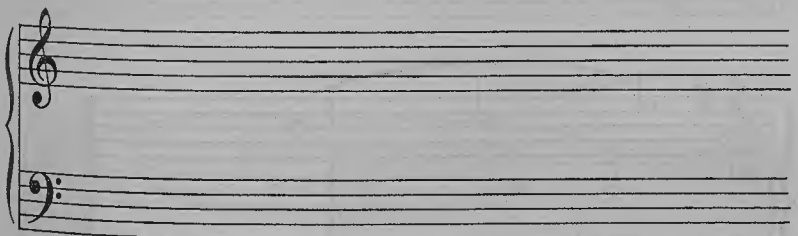
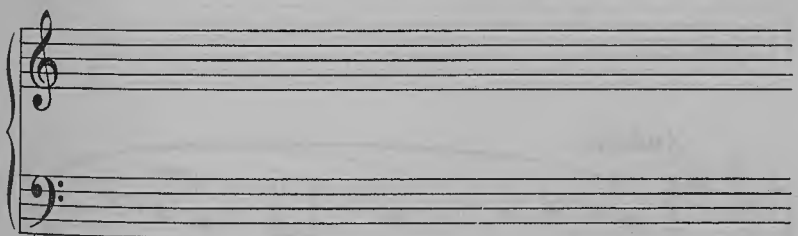
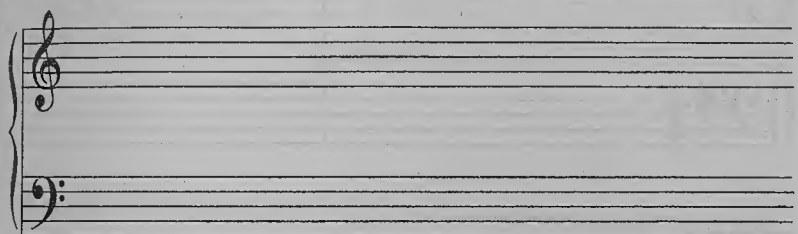
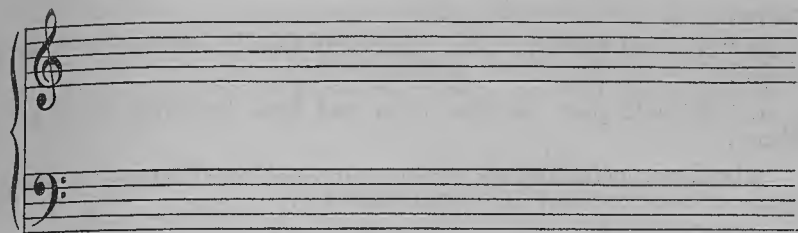
OR

“ Half down the hill where fa’s the linn,  
Far frae the flaught of fowk,  
I saw upon a lanely whin,  
A lanely singin’ gowk.  
Cuckoo, cuckoo ;  
Behind my back  
The howie hill stuid up and spak,  
Cuckoo, cuckoo.”

*Soutar.*

(22)





2. The following melody can be harmonized either in G major, or in E minor.

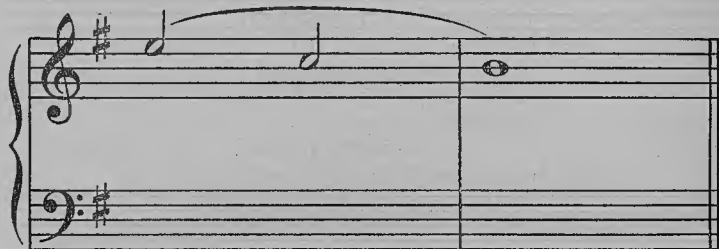
At "A," add parts for alto, tenor and bass throughout in the key of G major.

At "B," add parts for alto, tenor and bass throughout in the key of E minor.

In both harmonizations use passing notes, and keep the crotchet movement going in at least one part during the third bar. (26)

*Andante*

A



*Andante*

B



3. Below the following extract for treble voice, adapted from an Ayre by Robert Jones (1601), write an alto part which, when sung with the given part, would make satisfactory unaccompanied two-part harmony. Let the alto part begin after one bar of rest. The words may be modified in any way you please to fit the alto part, *e.g.* the first phrase might be "Now what is love, pray tell?"

(20)

*Moderately quick*

Treble

*mf* Now what is love I pray Thee

Alto

tell? It is that foun tain

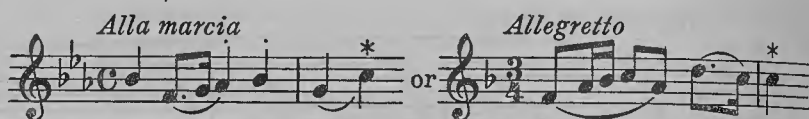
and that well Where pleas-ures

and re - pen - tance dwell.

4. Expand **one** of the following phrases into a melody of 12 bars in length, consisting of three 4-bar phrases in ternary form. The melody should contain a modulation, and should grow out of the given phrase so that the style is consistent.

The note marked \* may be of any length.

(20)



5. Here are three excerpts from Tchaikowsky's 5th Symphony. Try to hear them in your mind, then write your answers to the following questions on this paper.

*Allegro* 1st Phrase

*f* *molto espress.* *mf* *f*

1 2 3 4 5 6

2nd Phrase

*mf cresc.* *ff* *p* etc.

*Più animato*

*f* etc.

*Allegro vivace*

*f* etc.

*f* etc.

Excerpt "A" :—

(a) In what key is this excerpt ?

(1)

(Answer) .....

(b) How does the composer obtain an effect of added emphasis in the second phrase ?

(2)

(Answer) .....

(c) Name the chords marked x.

(6)

(Answer) 1.....

2.....

3.....

4.....

5.....

6.....

Excerpt "B" :—

(a) What key does this excerpt suggest at its conclusion ?

(1)

(Answer) .....

(b) Name the keys through which the phrase passes during its brief course.

(3)

(Answer) .....

(c) Point out any similarities you notice between excerpt "A" and excerpt "B."

(2)

(Answer) .....

Excerpt "C" :—

(a) In what key is this excerpt ?

(1)

(Answer) .....

(b) Upon what harmonic device is the passage constructed ?

(2)

(Answer) .....

(c) What contrapuntal device is used in this passage ?

(2)

(Answer) .....

(Total marks for the question = 20)

## MUSIC

## HIGHER GRADE—(SECOND PAPER)

Wednesday, 16th March—11.45 A.M. to 12.30 P.M.

**N.B.—Write in ink. Marks will be deducted for bad spelling and bad punctuation and for writing that is difficult to read.**

*All answers are to be written in the examination book provided.*

*The value attached to each question, or to each part of a question, is shown in brackets after the question.*

## PAPER II

**Answer Question 4 and ONE other question from this paper.**

1. Name four important works (other than operas) for voices and orchestra written since 1830. Give some account of one of them, quoting themes. **(16)**

2. What is "chamber music"? Compare briefly the chamber music of the 17th and early 18th centuries with that of the 19th century. Name some of the groups of instruments used, and some composers who wrote this type of work. Quote themes from any **one** work you know in either period. **(16)**

3. What is a "chorale"? Mention two ways in which Bach used this form of composition in his works. Quote a few bars of the melody of any two chorales used by him, other than the "Passion Chorale." **(16)**

4. Identify **three** of the following excerpts from the list of pieces prescribed for study. Name the work (and the movement, if it contains more than one), the composer, and the date of its composition. **(6)**

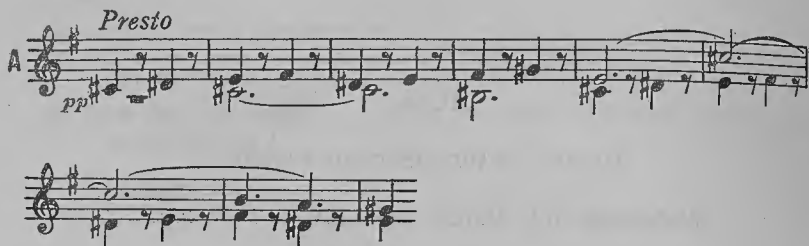
Write a short factual paragraph about the form, general characteristics (including the instruments used if it is scored for orchestra), and mood of **one** of the works (or movements) you have identified. **(5)**

Quote a few bars of at least one principal theme, other than the theme you have identified, from the work (or movement) you have selected. **(5)**

**(Total marks = 16)**

*Presto*

A



*Andante*

B



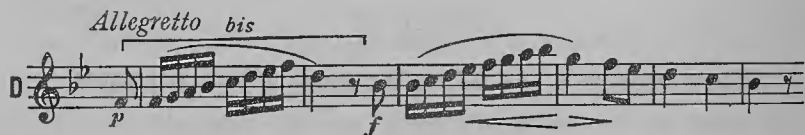
*(Grave)*

C



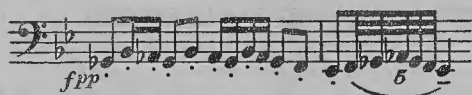

*Allegretto bis*

D



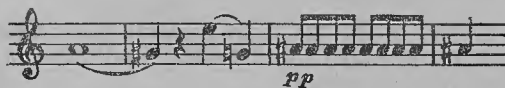
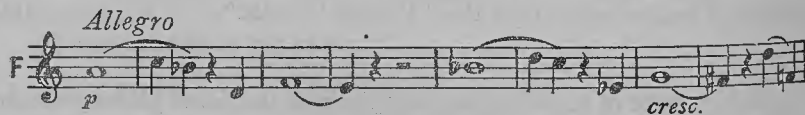
*Grave*

E



*Allegro*

F



## ART

## HIGHER GRADE—(FIRST PAPER)

Tuesday, 8th March—1.0 P.M. to 2.0 P.M.

ONE question only should be answered from this paper.

N.B.—Marks will be deducted for bad spelling and bad punctuation, and for writing that is difficult to read.

40 marks are assigned to each question.

## Painting

1. Write a brief paragraph on each of the following Spanish painters :—  
Velasquez ; Murillo ; Goya ; El Greco.

State which artist you prefer, giving reasons.

2. Which, in your opinion, was the most outstanding School of painting in Northern Italy during the fifteenth and sixteenth centuries ? Describe the characteristics of the School you choose, naming the principal painters, and give reasons for your choice.

3. Describe both the Early Flemish School and the Later Flemish School. In addition, compare and contrast them broadly.

4. Write a brief comparison of the work of any two Scottish painters who were prominent during the eighteenth and nineteenth centuries.

5. What groups or Schools of French Painting were active during the first half of the nineteenth century ? Comment on the development and importance of these groups and name the principal painters.

## Architecture

6. Describe the Parthenon and the Colosseum. Draw a plan of each building and add any other sketches which you feel will help your answer.

7. Discuss, briefly, the chief characteristics of the architecture of Ancient Egypt. Illustrate your answer.

8. Compare Norman and Early English architecture. Add sketches to supplement your answer.

9. Describe the architecture of one of the following, and add sketches to illustrate your description :—

Dunfermline Abbey.

Elgin Cathedral.

Charlotte Square, Edinburgh (North side).

Kirkwall Cathedral.

Kelso Abbey.

Dalmeny Church.

Leuchars Church.

## ART

## HIGHER GRADE—(SECOND PAPER)

Tuesday, 8th March—2.15 P.M. to 4.15 P.M.

**Both questions should be attempted.***30 marks are assigned to each question.***Section I—Composition**

1. Make within a rectangle (8 inches by 6 inches, horizontal or upright) a sketch in colour for a figure composition illustrating **one** of the following subjects :—

- (a) Harvesting.
- (b) Fishermen at work.
- (c) Making the Pantomime Giant's Head.
- (d) The Fifth of November.

Due credit will be given to preliminary rough sketches.

**Section II—Design**

2. Illustrate by a sketch a design suitable for **one** of the following :—

- (a) A paper book-jacket (front and spine) size  $7\frac{1}{2}$  inches by 5 inches, spine 1 inch. Choose one of the following titles which must be included in the design, and execute in colour.  
     "September Song"; "The Staircase"; "Dangerous Cargo."
- (b) Embroidered beach bag. Design your own shape (longest measurement 8 inches). Execute in colour and state in what materials your design would be carried out. Show the stitches clearly and name them.
- (c) Block-printed fabric (all-over half drop repeat pattern) for window curtains in a school lunch room where the walls are white and the table tops cobalt blue. Size of repeat pattern 3 inches by 4 inches. (Draw at least four repeats and colour enough to show what the whole design would look like.)
- (d) Cover for a booklet (8 inches by 5 inches, long side upright). Introduce the words "School Dramatic Club" and execute in colour.
- (e) A rug, size 7 feet by 4 feet, for a yellow and grey entrance hall. Make your design 7 inches by 4 inches. State how the rug would be made, and execute in colour.

**BOOK-KEEPING****LOWER GRADE**

Friday, 18th March—9.15 A.M. to 11.15 A.M.

**Marks will be deducted for careless or badly arranged work.**

*The value attached to each question is shown in brackets after the question.*

1. Explain—Noting charges : general reserve : current liabilities. (15)
2. Describe the advantages of using a petty cash book, and explain in some detail **one** system of keeping this book. (15)
3. The partnership agreement between Millar and Donald provides, *inter alia*, that (a) balances of partners' capital accounts shall be altered only through capital transactions; (b) interest shall be allowed on capital at the rate of 5 per cent. per annum, and (c) profits and losses shall be shared in proportion to capital.

On 1st July, 1954, they agreed to admit their manager, W. Crombie, into partnership on the following terms : (a) the goodwill of the firm should be valued at £2,000 ; (b) Crombie should receive, in addition to his salary of £50 per month, 10 per cent. of the firm's net profits from the date of admission ; and (c) the remainder of the profits should be shared in the same ratio as previously.

Crombie was unable to contribute any capital and continued to draw his salary monthly as before.

No entries were made in the books in respect of the new arrangements.

When the accounts of the firm for the year ending 31st December, 1954 were made up, the following were among the balances shown in the books :—capital, Millar, £6,000 ; capital, Donald, £4,000 ; current account, Millar, £345 (Cr.) ; current account, Donald, £106 (Dr.) ; drawings, Millar, £480 ; drawings, Donald, £360 ; drawings, Crombie, £60 ; trading profit, £2,650.

You are required (a) to make the entries occasioned by the agreement of 1st July, 1954 ; (b) to prepare a statement showing the actual net profit of the firm and its division among the partners ; and (c) to draw up the current account of each of the partners at 31st December, 1954. (18)

4. On 1st February, 1955, the balances in the books of J. Moon were as follows :—cash, £15 ; bank overdraft, £103 ; stock of goods, £845 ; motor vehicles, £415 ; furniture and fittings, £112 ; sundry debtors (B. Craig, £36 ; H. Kenny, £18), £54 ; sundry creditors (R. Baty, £72 ; T. Dickie, £63), £135 ; loan from N. Leslie, £500 ; stock of packing materials, £60 ; provision for rent, £35 ; bills receivable (No. 27, on H. Kenny, due 12th March, 1955, £54 ; No. 30, on S. King, due 8th March, 1955, £87), £141 ; bill payable (No. 33, to T. Dickie, due 24th February, 1955), £108 ; capital, £761.

Open the necessary books of account and record therein the above and the following transactions. Bills books are to be kept. Balance off the bank cash book. Make up the ledger account of R. Baty **only**. No other transactions are to be posted to the ledger.

All payments were made by cheque unless otherwise stated and all receipts were paid into bank on the days they were received.

1955

- Feb. 1. Bought on credit from R. Baty goods value £60, less 20 per cent. trade discount.
- " 2. Bank advised that H. Kenny's cheque for £24, which had been paid in on 31st January, had been returned marked " Account closed."
- " 4. Sold on credit to B. Craig goods value £45.
- " 7. Sold on credit to R. Purvis surplus packing materials £22 15s.
- " 8. Returned to R. Baty goods value £10 gross.

- Feb. 10. H. Kenny paid on account £16.  
 „ 11. Discounted at bank bill No. 30 : amount received £86 5s.  
 „ 11. Received from the Rex Motor Company Ltd. invoice for new delivery van costing £685 and their bill for insurance premium £35 10s., road licence fee £30 15s., and petrol and oil £1 15s. Sent cheque in settlement, less  $2\frac{1}{2}$  per cent. discount for cash.  
 „ 12. Paid N. Leslie interest on loan £12 10s. and obtained from him an additional loan of £300.  
 „ 14. B. Craig returned goods value £3 and gave in full settlement of his account cheque for £26 and bill for £50 at 30 days.  
 „ 16. H. Kenny became insolvent : agreed to accept composition of 12s. in the £ in full settlement of amount owing.  
 „ 19. R. Baty supplied on credit goods value £45 for J. Moon's private use.  
 „ 21. Bank charged fee for keeping account £1 5s. and interest on overdraft £3 6s.  
 „ 23. Accepted R. Baty's bill for £155 at one month in full settlement of amount owing.  
 „ 24. Duly met at bank bill due to-day.  
 „ 26. Drew from bank for office cash, £40.  
 „ 28. Cash sales for month, £318.  
 „ 28. J. Moon drew for his own use, £25.  
 „ 28. Paid in cash wages for month, £32 5s., together with commission at the rate of 2 per cent. on sales less returns. (52)

## BOOK-KEEPING AND COMMERCIAL ARITHMETIC

### HIGHER GRADE

Friday, 18th March—9.15 A.M. to 12.15 P.M.

*The value attached to each question is shown in brackets after the question.*

**Marks will be deducted for careless or badly arranged work.**

### COMMERCIAL ARITHMETIC

**FOUR questions are to be attempted. Answer QUESTION 1 and any THREE others.**

*Before attempting to answer any question, candidates should read the whole of it very carefully, since time is often lost through misapprehension as to what is really required.*

*Four-place mathematical tables are provided.*

*All the working must be shown in its proper position in the answer and, when necessary, the different steps of the calculation should be shortly indicated in words.*

*Algebraical symbols may be used if properly explained.*

1. A merchant mixes 2 cwt. 1 qr. 8 lb. of tea costing 4s. 3d. per lb. with 1 cwt. 1 qr. of tea costing 5s. 6d. per lb. and sells the mixture at 6s. 6d. per lb. Express his gain as a percentage of his turnover. (Give your answer correct to the nearest whole number.) (22)

2. The liabilities of an insolvent trader amount to £5,682, of which £432 are preferential and must be paid in full. His assets are: stock which fetches 75 per cent. of its book value of £1,770; sundry debts which realise £844; and buildings which are sold for £1,360. The expenses of winding up the estate amount to £484. What additional sum must he raise if he is to pay a composition of 14s. 6d. in the £ to his ordinary creditors? (26)

3. At what rate per cent. per annum will £900 amount to £1,260 in ten years if interest is added to principal half-yearly? (26)

4. (a) On a plan drawn on a linear scale of 1 to 10,000, a vineyard is represented by a rectangle having sides of  $12\frac{1}{2}$  cm. and  $4\frac{1}{4}$  cm. If 15 per cent. of the ground is occupied by buildings and 5 per cent. by paths, what is the area of the remainder?

(b) If the whole of this remainder is cultivated and fertiliser is to be applied to it at the rate of 650 Kg. per hectare, what will be the cost at £2 per bag of 50 Kg.? (26)

5. What price should a man pay for one thousand (1,000) 5s. shares, on which a dividend of  $7\frac{1}{2}$  per cent. is payable, so that, after income tax at 9s. in the £ has been deducted, he may have a return of  $4\frac{1}{2}$  per cent. on the money he invested? (Ignore brokerage.) (26)

### BOOK-KEEPING

Answers to these questions must be written in a separate book.

1. Set out the procedure you would adopt in order to trace the difference in a trial balance, the sides of which do not agree. (16)

2. Describe **three** methods of providing for the depreciation of assets and indicate briefly the merits of each. (15)

3. On 31st January, 1955, the balances in the books of D. Ramsay included the following:—Stock at 1st February, 1954, Dept. A, £350, Dept. B, £1,600, Dept. C, £1,060; purchases, Dept. A, £3,290, Dept. B, £5,430, Dept. C, £2,860; sales, Dept. A, £5,460, Dept. B, £6,640, Dept. C, £4,180; purchases returns, Dept. A, £80, Dept. B, £110, Dept. C, £70; sales returns, Dept. A, £260, Dept. B, £140, Dept. C, £280; wages, Dept. A, £520, Dept. B, £750, Dept. C, £410; salaries, £480; rent and rates, £120; carriage, £60; fuel and light, £84; discount allowed, £48; trade expenses, £96.

Stock in hand at 31st January, 1955, was valued as follows:—Dept. A, £360, Dept. B, £2,100, Dept. C, £1,250.

Account is to be taken of depreciation of fixtures and fittings amounting to £144 and of provision for doubtful debts, £108.

(a) Prepare Departmental Trading and Profit and Loss Accounts for the year ended 31st January, 1955. *Note*: All undivided expenses are to be apportioned between the departments according to net turnover.

(b) Comment on the results disclosed by the accounts. (25)

4. On 1st February, 1955, R. Brand and H. Devine agreed to combine their businesses and to enter into partnership.

The balances in R. Brand's books were as follows:—cash, £15; bank, £363; stock of goods, £415; sundry debtors (J. Eadie, £37; W. Craven, £71), £108; creditor, P. Burns, £62; bill receivable (No. 61, on J. Eadie, due 15/2/55), £129; motor vehicles, £325; provision for rent, £44.

H. Devine's assets and liabilities were as follows:—cash, £25; bank overdraft, £143; stock of goods, £760; sundry debtors (T. Forrest, £48; C. Kyle, £56), £104; sundry creditors (J. Howie, £92; A. Morton, £76), £168; insurance paid in advance, £26; bill payable (No. 121, to S. Lyall, due 19/2/55), £164.

The partnership agreement provided, *inter alia*, that:—

- (a) each partner should have a fixed capital of £1,200, any initial adjustment required to be made through the firm's bank account;
- (b) the value of H. Devine's stock of goods should be written down by 15 per cent.;
- (c) the value of the goodwill of R. Brand's business should be £450 and that of H. Devine's £200;
- (d) H. Devine, in consideration of his work for the firm, should receive a monthly salary of £35.

On the same day they took over from W. Cecil who was giving up business the following assets:—stock of goods, £230; business premises, £1,450; motor van, £365; packing materials, £45. W. Cecil agreed to leave half the amount owing as a loan to the firm provided the other half were paid forthwith.

Open the necessary books of account and record therein the above and the following transactions. Bills books are to be kept. Balance off the bank cash book.

All payments were made by cheque unless otherwise stated and all receipts were paid into bank on the days they were received.

Do **not** post any transactions to the ledger.

1955

- Feb. 1 The necessary adjustments to the partners' capitals were made by cheque.
- „ 1 Sent W. Cecil cheque as agreed.
- „ 3 T. Forrest paid amount owing, less 5 per cent. cash discount.
- „ 5 Bank advised that C. Kyle's bill for £80, which had been discounted with them, had been dishonoured by non-payment and that they had paid noting charges £1 5s.
- „ 7 Bought goods of J. Howie value £105, less 10 per cent. trade discount.
- „ 10 Sold to W. Craven goods value £38.
- „ 12 C. Kyle paid on account £25.
- „ 15 J. Eadie duly met his bill due to-day.
- „ 17 Made W. Craven an allowance of £7 on goods purchased on 10th February and received his acceptance at one month for total amount owing.
- „ 19 Duly met at bank bill due to-day.
- „ 21 Returned to J. Howie goods value £22 gross and accepted his bill for £164 at thirty days in full settlement.

- Feb. 24 The motor van which was taken over from W. Cecil was accidentally destroyed by fire: the amount recoverable from Lloyd's Underwriters, the insurers, was £310.
- " 26 C. Kyle became insolvent: received, in full settlement of amount owing, motor cycle value £45 and cheque for £30. R. Brand took over motor cycle for his private use.
- " 28 Paid wages in cash £27 15s.
- " 28 Paid partner's salary by cheque.
- " 28 Cash sales for month £368 10s.

(44)

### COMMERCIAL SUBJECTS—SHORTHAND

Thursday, 24th March—9.15 A.M. to 11.15 A.M.

*This paper must not be seen by any candidate*

#### Instructions to the Teacher

1. The twenty minutes immediately preceding the beginning of the tests should be used to make yourself thoroughly familiar with the passages to be read.

2. When so instructed by the supervising officer, read to the candidates the "Instructions to Candidates" given below.

3. The short practice passage of approximately eighty words which is printed on page 188 is to be used for practice reading to the candidates. The passage may be read once only.

4. Then read the passages to the candidates clearly and naturally. Punctuation will be indicated by appropriate pauses and the inflection of the voice, and will in no case be dictated.

5. Tests should be read in ascending order from the lowest to the highest speed required.

6. An interval of two minutes is to be allowed between the reading of the passages.

7. Phrasing according to any particular system of shorthand is not permitted.

8. Tests, or parts of tests, must not, **under any circumstances**, be read more than once.

9. The reading of each passage should occupy exactly five minutes.

10. Figures should be read in full, e.g., £164,300 (one hundred and sixty-four thousand, three hundred pounds).

11. Errors made in reading will be noted by the supervising officer and taken into account by the examiners. Corrections must not be made by the teacher after the passage has been read.

12. No test paper may be taken from the room by you or by any other person until the conclusion of the examination.

13. When all the passages required have been read you will immediately withdraw from the examination room.

### Instructions to Candidates

The procedure will be as follows :—

1. A short practice passage will be read. This must not be transcribed. The shorthand notes must be handed in at the end of the examination.
2. Tests will be read in ascending order from the lowest to the highest speed required.
3. An interval of two minutes will be allowed between the reading of the passages.
4. The shorthand notes may be taken with either pen or pencil, but transcripts must be written in ink.
5. You may take down the passages dictated at more than one speed, but you may submit a transcription of only one passage.
6. On no account may alterations be made to the original shorthand notes. Any alterations which you wish to make should be indicated by a circle round the wrong outline or phrase and the correct one written above.
7. Candidates on the higher grade must not take down passages read at speeds lower than eighty words per minute.
8. You may not ask for the repetition of any word or phrase.
9. All writing during subsequent readings, as well as in the intervals between readings, is strictly forbidden.
10. You will be told by the supervising officer when transcription may be commenced.
11. The shorthand notes of the passage transcribed should be attached to the transcript and should be handed to the supervising officer, together with all other shorthand notes made by you.

### SHORTHAND

#### Practice Passage for Dictation

The passage may be read **once only** at an appropriate speed. Candidates should not make a transcription of the passage, but must hand in their shorthand notes at the close of the examination.

**The oblique lines, /, mark the divisions into sections of ten words each. The reader should not make a pause when they occur, unless the sense requires it.**

It is impossible within the limits of this statement to / review the activities and results of all member companies of / the group at home and abroad. Many companies have not / been mentioned at all. Some have increased their profits in / 1954 and others have had a difficult year, / because of the fluctuations of trade, or in overcoming the / initial difficulties of establishing factories abroad. There is a strong / inclination for other countries to make themselves independent of imports / from this country.

## Sixty Words per Minute

(Fifty minutes allowed for transcription)

The oblique lines, /, mark the division of time, but the reader must not make a pause when they occur, unless the sense requires it. The double lines, //, mark the completion of each minute.

Dear Sir,

I am very pleased to send you some particulars of the business in / which we are both interested.

It began, as so many firms have begun, in a / small way when a little shop was opened nearly a century ago. The shop-keeper, who / had had good experience in the purchase of materials for a large store, bought his // stock carefully and gave good value, for he knew the importance of taking great trouble / to give his customers the choice of a wide range of sizes and colours of / goods. He did not advertise, but his business came to have a reputation for value / and honesty.

As the business grew, the owner took his son into partnership and he // had the idea of turning the firm into a partnership for all the workers in / it. Some time passed before he was able to put his scheme into practice. As / the business has grown since then to more than thirty times its original size, further / changes have been made.

The essential idea of the founder was very simple. The managers // should receive good rewards for their skill, but no more. Those who supplied the capital / should have a reasonable dividend, but the total payment for taking the financial risks should / be limited. No worker should be paid less than a living wage. As a rule, / the rates of wages should encourage efficiency in the service of the general public. All // profits, after meeting these claims and providing proper reserves, should be distributed among the workers / in proportion to their pay. Payments should be made in the form of cash or / shares. It was later decided that part of the profits should be set aside to / give help to those who became ill in the service of the firm.

Yours faithfully, //

## Seventy Words per Minute

(Fifty minutes allowed for transcription)

The oblique lines, /, mark the division of time, but the reader must not make a pause when they occur, unless the sense requires it. The double lines, //, mark the completion of each minute.

The annual general meeting of the shareholders of the company was held in Glasgow on Friday.

The / chairman of the board presided.

The secretary having read the notice convening the meeting and the auditors' report / upon the balance sheet and accounts, the chairman said :—

Gentlemen,

As you have had the directors' report / and statement of accounts in your hands for some days, may I assume that you are agreeable that // we take them as read ?

1  
1/4  
2  
3/4  
2  
You will have observed that the accounts have been prepared in a / more comprehensive form than in the past and now include a consolidated balance sheet and profit and loss / account for the company and its subsidiaries : your directors were of the opinion that a suitable time / had arrived for a more complete picture of the company's financial position to be placed before the shareholders. //

1  
1/4  
1/2  
I should mention that further adjustments may be required next year when the provisions of the new / Companies' Act have been clarified.

1  
3/4  
3  
May I, first of all, refer to the figures given in the directors' / report? There are, I think, only two points deserving of comment : the top figure—the gross profit— / is some £70,000 down on the comparable figure for 1953 : this is almost wholly // due to the fact that, in place of our trading profits, we received only dividends on investments.

1  
1/4  
1/2  
3/4  
4  
1/4  
The / other item to which I would draw your attention is the provision for taxation which your directors have / considered it advisable to make —£38,500 against NIL in the previous year's / accounts : this figure provides for all taxation liabilities on the profits of the company up to 31st // December, 1954. Apart from the two items mentioned the figures in the directors' report show / little or no change.

1  
3/4  
3/4  
5  
In order that the shareholders might receive their dividends on the usual date your / directors decided, in addition to the payment of the preference dividends, to declare a second interim dividend on / the ordinary shares as shown in the report : this payment was the same as for the previous year. //

### Eighty Words per Minute

(Sixty-five minutes allowed for transcription)

The oblique lines, / , mark the division of time, but the reader must not make a pause when they occur, unless the sense requires it. The double lines, // , mark the completion of each minute.

1  
4  
The thirty-third ordinary general meeting of the company was held on Thursday last at the registered offices of the / company, the chairman of the company presiding.

1  
1/2  
3/4  
The secretary having read the notice convening the meeting and the report of / the auditors, the chairman said : Before dealing with the accounts, I would like to refer briefly to changes that have / been made in the management of the Smith group of companies during the past year.

1  
1/4  
1/2  
3/4  
On 2nd August, I retired // from the managing directorship of the company and, in my place, the directors appointed Mr. James Smith, who, for many / years, acted as deputy-managing director and took a prominent part in the successful reorganisation of the company's business from / war to peace-time production. I have agreed to act as financial director to the company for a period of / five years and to continue as chairman during the same period if the directors so desire.

2  
The above arrangement provides // for continuity in the management of the company.

1  
1/4  
1/2  
I am pleased to announce that, during the year, Sir James Black / has joined the board. We are glad to have the benefit of his advice, particularly as we now have large / interests in Scotland.

3  
4  
Another director, Mr. Gray, is not with us to-day, as he is making a tour of our / foreign branches in connection with the company's business.

This year we are presenting our accounts in a revised form. We // constantly have in mind the problem of how to report in a clear and reasonably simple form the year's results / of the rather complicated organisation which we control.

On page two we set out a brief summary of the organisation. / This shows the main companies and includes the names of the more important subsidiary companies in each division. On pages / four and five we present the balance-sheet of your own company, arranged so as to show the comparative figures // of the main classes. The profit and loss account follows on page six and we then come, on page seven, / to the consolidated profit and loss account—the figures which are of the greatest interest to you. It may be / well to point out that where the financial years of the subsidiary companies are not the same as your own / company, accounts based on the certified accounts for the year are made up to the date of our balance-sheet. //

### Ninety Words per Minute

(Sixty-five minutes allowed for transcription)

The oblique lines, / , mark the division of time, but the reader must not make a pause when they occur, unless the sense requires it. The double lines, // , mark the completion of each minute.

The twenty-third annual general meeting of the company was held yesterday, the chairman presiding.

The secretary read the notice convening the / meeting and the report of the auditors.

The chairman said :—Your directors have much pleasure in presenting their report to the members present / at the annual general meeting. The company has for nearly 24 years been able to report continued progress since its formation. /

The business commenced as a private partnership in the year 1780, and it now numbers some twelve different companies with five additional // branches throughout the United Kingdom.

For several years now the general meeting has been held in October instead of July as formerly, / but a second interim dividend has been paid each year in place of the final dividend formerly provided.

Your directors have been very / disappointed in the slow progress made in rebuilding their premises in Birmingham, and also in obtaining licences to commence those required in / Liverpool. This excessive delay greatly hampers the work that has to be done in these areas.

The constant advance in overheads and wages // is a serious handicap to most companies, and especially to those handling products sold on a fixed price basis where it is / not possible to raise the selling price to compensate for increased expenses.

Your company reported last year that the sales were constantly increasing. / This growth is still being experienced, but money urgently required to meet the needs of an expanding business has to be paid / away in taxes and other costs.

Your directors are glad, however, to report that in spite of increased difficulties the position of // your company has been substantially maintained. Record sales have been experienced and are continuing, but higher costs have produced a slight fall / in the net profits.

1/2 Copies of the balance sheet and report have been sent to all members  
 3/4 and, with your permission, I suggest / that these be taken as read.

It will be noted that the reserves amount to £1,150,000 / and are  
 nearly equal to the issued capital.

4 The current assets and investments together reach £3,400,000  
 which // is sufficient to meet the current liabilities, and to leave a balance  
 of over £1,000,000.

1/4 This year as usual two / interim dividends have been paid, the first  
 1/2 of 10 per cent. and the second of 15 per cent. This means a reduction of /  
 2 1/2 per cent. as compared with the dividends paid now for years past.  
 3/4 Your directors deemed it advisable to / make this reduction, not because  
 5 sales were decreasing, but because of the constant increase in expenses of  
 all kinds and the higher taxation. //

### One Hundred Words per Minute

(Seventy minutes allowed for transcription)

The oblique lines, /, mark the division of time, but the reader must not make  
 a pause when they occur, unless the sense requires it. The double lines, //, mark  
 the completion of each minute.

The thirty-fifth ordinary general meeting of the company was held  
 yesterday.

The chairman of directors presided.

1/4 The secretary read the notice convening the meeting / and the  
 auditors' report to the members.

The chairman said :—

1/2 The company's turnover and gross profits during 1953 again constitute  
 new high records / in money value. These results were, to a large extent,  
 due to circumstances beyond our control.

3/4 Firstly, there were large increases in the quantities issued / per  
 ration book of certain foods during the year.

Secondly, there have been substantial price advances in many  
 commodities.

1 Thirdly, although the price increases mentioned // in the previous  
 paragraph were not accompanied by any increases in wholesalers' margins  
 of profit, the greater quantities handled naturally added substantially to  
 1/4 our turnover / and gross profits.

Fourthly, there have been large increases in supplies of certain other  
 goods.

1/2 Fifthly, a much greater quantity and a greater variety of / foodstuffs  
 came on the market during 1953.

3/4 Lastly, there have been considerable price advances in many of the  
 general grocery commodities handled by / the company and in many  
 cases, but not in all, these were accompanied by increases in profit margins.

2 As a result of these factors, supported // by a progressive sales  
 policy carried out by an enthusiastic selling staff, the total tonnage handled  
 1/4 and the gross profit for 1953 were / the highest in the company's history.

1/2 Expenditure continues to rise and wages for 1953 were higher than  
 those for 1952. Other / expenses have also increased by over 5 per cent.  
 but the gross profit has been sufficient to absorb these additional expenses

and show an increased / net profit for 1953 (before charging taxation and before including special items) of £120,000 against £105,000 // for 1952, an increase of 14 per cent.

Later I shall move a formal resolution that the ordinary dividend for / 1953 be increased to 15 per cent. as against 10 per cent. for several years previously but at this stage I would like to / make certain comments.

We hear a great deal these days about limitation of dividends and some people would go so far as to suggest that / an increase in dividends is unfair.

We have over 1,400 ordinary shareholders; two-thirds of them hold 100 or less shares. //

Nearly 60 per cent. of the shareholders have held their shares for twenty years or more : 400 of them have held their shares for / over thirty years.

Twenty years ago we paid them a dividend of 7 per cent. For the year 1953 we recommend a payment / of 15 per cent., an increase of 114 per cent. over what we paid twenty years ago. During the same period salaries / and wages have increased by almost 200 per cent.

Your directors feel assured that the increased dividend will be welcomed by all shareholders concerned. //

## COMMERCIAL SUBJECTS

### LOWER GRADE—ECONOMICS GROUP

Wednesday, 23rd March—9.15 A.M. to 11.45 A.M.

Not more than **EIGHT** questions should be attempted. **FOUR**, but not more than four, of these should be taken from each of the **TWO** branches studied.

N.B.—Write legibly and neatly, and leave a space of about half an inch between the lines.

Marks will be deducted for bad spelling and bad punctuation, and for writing that is difficult to read.

*Candidates should enter in the space provided on the front cover the names of the subjects in which questions have been attempted.*

*The value attached to each question is shown in brackets after the question.*

### COMMERCE

Candidates who have studied this branch should attempt **FOUR** questions, namely, Nos. 1 and 2 and any **TWO** of the others.

1. Explain the importance of commerce as a branch of economic activity. (15)
2. Describe the main types of risk against which a business man normally insures. What risks cannot be covered by insurance? (25)
3. State the purposes of bank clearing and describe how it is operated. (30)

4. Why are certain services to the community usually provided by local authorities or state-controlled bodies ? (30)

5. Give an account of the main features of co-operative retail trading. (30)

6. Describe the organisation of one of the great produce markets in this country and indicate the benefits it confers on manufacturers and merchants. (30)

### ECONOMICS

Candidates who have studied this branch should attempt **FOUR** questions, namely, Nos. 1 and 2 and any **TWO** of the others.

1. What is meant by the equilibrium price in a market ? Illustrate your answer by a diagram. (15)

2. Discuss the significance of the term " entrepreneur ". (25)

3. Give an account of the main functions of a trade union and describe the factors on which its bargaining strength depends. (30)

4. What is the law of diminishing returns ? Indicate how it operates in a particular case. (30)

5. Explain the difference between the standard of living and the cost of living ; and set out the chief factors which determine the standard of living at any one time. (30)

6. Every Bank of England pound note issued bears the following statement : " . . . . promise to pay the bearer on demand the sum of one pound ". What did this mean before 1914 ? What does it mean to-day ? (30)

### ECONOMIC GEOGRAPHY

Candidates who have studied this branch should attempt **FOUR** questions, namely, Nos. 1 and 2 and any **TWO** of the others.

In any question, credit will be given for appropriate sketch maps and diagrams.

1. What is " plantation agriculture " ? (15)

2. Write a short account of the whaling industry. (25)

3. Describe the geographical factors which influence the distribution of the world's sheep population and name the main wool exporting areas in order of importance. (30)

4. Examine the importance of the hinterland in the growth of a seaport. Illustrate your answer by reference to any **two** of the following : Hamburg, San Francisco, Rio de Janeiro, Singapore. (30)

5. Comment on the geographical factors which attracted **either** the cotton industry to Lancashire **or** the pottery industry to Staffordshire, and explain why the industry has remained in its original situation. (30)

6. Describe the development of hydro-electric power in Scandinavia **or** Canada **or** Australia. (30)

## ECONOMIC HISTORY

Candidates who have studied this branch should attempt **FOUR** questions, namely, Nos. 1 and 2 and any **TWO** of the others.

1. Indicate briefly the effect on industry of the Limited Liability Act of 1855. (15)
2. "The discovery of the motive power of steam was the central fact of the Industrial Revolution." Explain. (25)
3. Examine the extent to which the medieval manor attained its objective of self-sufficiency. (30)
4. Describe the principal inventions which revolutionized technique in the textile industries in the eighteenth century. Indicate the relative importance of each. (30)
5. Comment on the changes in the size and distribution of the population of Great Britain between 1800 and 1900. (30)
6. Give an account of the main items of factory legislation between 1800 and 1850. (30)

## COMMERCIAL SUBJECTS

## HIGHER GRADE—ECONOMICS GROUP

Wednesday, 23rd March—9.15 A.M. to 11.45 A.M.

Not more than **EIGHT** questions should be attempted. **FOUR**, but not more than four, of those should be taken from each of the **TWO** branches studied.

N.B.—Write legibly and neatly, and leave a space of about half an inch between the lines.

Marks will be deducted for bad spelling and bad punctuation, and for writing that is difficult to read.

*Candidates should enter in the space provided on the front cover the names of the subjects in which questions have been attempted.*

*The value attached to each question is shown in brackets after the question.*

## COMMERCE

Candidates who have studied this branch should attempt **FOUR** questions, namely Nos. 1 and 2 and any **TWO** of the others.

1. Describe the main functions of the Stock Exchange. (15)
2. How does the producer justify the expenditure of large sums of money on advertising? (25)
3. From the point of view of the consumer, compare the part played by the wholesale merchant in the distribution of manufactured goods with more direct methods of distribution. (30)

4. Discuss the conditions which must be satisfied if a selling association is to act as an effective means of controlling prices in the interests of its members. (30)
5. Explain and discuss the difference between the balance of trade and the balance of payments. (30)
6. How does the Bank of England conduct open-market operations? What is the essential difference between this method of controlling credit and the Bank Rate technique? (30)

### ECONOMICS

Candidates who have studied this branch should attempt **FOUR** questions, namely Nos. 1 and 2 and any **TWO** of the others.

1. "The division of labour is limited by the extent of the market." Explain. (15)
2. What are the chief sources of government revenue in this country? Indicate the relative importance of each. (25)
3. Describe the advantages and disadvantages to a community of international trade. (30)
4. On what factors does the strength of a monopoly depend? (30)
5. Outline, and comment on, any **one** explanation of the recurrent increases and decreases in economic activity. (30)
6. What considerations affect the level of savings in a community? (30)

### ECONOMIC GEOGRAPHY

Candidates who have studied this branch should attempt **FOUR** questions, namely Nos. 1 and 2 and any **TWO** of the others.

In any question, credit will be given for appropriate sketch maps and diagrams.

1. What are the Newfoundland Banks? (15)
2. Discuss the relative importance of the main coalfields of Great Britain from the point of view of (a) the export markets and (b) the home market. (25)
3. Examine the geographical factors governing the distribution of the chief rice-producing areas in Asia and indicate the effects of the second world war and its aftermath on the relative economic importance of the areas. (30)
4. It is often said that, in the past, this country could buy her food more cheaply with the produce of her factories than British farmers could grow it. Comment on this statement. (30)
5. Make a comparison of the geographical factors which determine the character of the exports of Canada and the Argentine respectively. (30)
6. Examine the relative importance of the Suez and Panama Canals. (30)

## ECONOMIC HISTORY

Candidates who have studied this branch should attempt **FOUR** questions, namely Nos. 1 and 2 and any **TWO** of the others.

1. Discuss the effects of the Union of 1707 on the development of Scottish agriculture. (15)

2. Give an outline of the main events in the development of Trade Unionism between 1871 and 1926. (25)

3. Explain and discuss the course of events which led up to the repeal of the Corn Laws. (30)

4. Consider the part played by Scottish banks in the development of industry in Scotland in the eighteenth and early nineteenth centuries. (30)

5. Discuss the work of the chartered companies in the development of English foreign trade in the seventeenth and eighteenth centuries. (30)

6. Outline the main events in the history of British industry in the period between 1919 and 1939. (30)

## AGRICULTURE

## LOWER GRADE

Tuesday, 22nd March—9.30 A.M. to 12 NOON.

Not more than **FIVE** questions should be attempted.

*Answers should, wherever possible, be illustrated by suitable diagrams.*

*Mathematical tables are supplied.*

A list of atomic weights will be found in the book of mathematical tables.

Marks will be deducted for bad spelling and bad punctuation, and for writing that is difficult to read.

*The value attached to each question, or to each part of a question, is shown in the margin.*

Marks

1. (a) What is meant by (i) **clay**, and (ii) **silt** as applied to a soil ? 2, 2

(b) The following are the mechanical analyses of two soils :—

	Soil A. per cent.	Soil B. per cent.
Coarse sand .. .. .	60	12
Fine sand .. .. .	20	15
Silt .. .. .	8	25
Clay .. .. .	5	40

What differences of importance to the farmer would you expect to find between soil A and soil B ?

16

- |  |                   |
|--|-------------------|
| 2. (a) Calculate from the formula the percentage of potash ( $K_2O$ ) in pure muriate of potash.   | <i>Marks</i><br>4 |
| (b) (i) What is meant by the <b>unit value</b> of a manurial constituent?  | 2                 |
| (ii) Calculate the cost per unit of potash in muriate of potash (51% $K_2O$ ) at £15 14s. 0d. per ton, and the value of a ton of a higher grade muriate of potash (60% $K_2O$ ) at the same unit price.  | 8                 |
| If the only impurity in this higher grade muriate is common salt, what percentage of this impurity is present?   | 6                 |
| 3. Make a labelled sketch of any type of plough and explain the function of each part.   | 20                |
| 4. (a) Describe the Norfolk four-course rotation of crops and the benefits which are derived from it.  | 4, 6              |
| (b) (i) What chemical elements are present in starch?  | 3                 |
| (ii) Explain the process by which water is absorbed by a growing plant.  | 7                 |
| 5. (a) Describe under the following headings how to grow a successful crop of <b>barley</b> :—(i) soil conditions, (ii) place in the rotation, (iii) preliminary cultivations, (iv) manuring, (v) sowing, (vi) after-cultivations, (vii) harvesting. | 14                |
| (b) State, with reasons, in which parts of Scotland the growing of barley is most successful. What is the approximate average yield of grain?  | 6                 |
| 6. Sketch and describe the external features of the <b>Crane Fly</b> at each stage of its development.   | 10                |
| Give its life history and explain its importance to agriculture.   | 5, 5              |
| 7. (a) Make a labelled diagram of the reproductive system of the <b>cow</b> and describe the function of each of the parts.  | 10                |
| (b) State approximately the normal period of gestation and the normal period of return of oestrus in <b>two</b> of the following:—mare, cow, ewe.  | 4                 |
| (c) Explain what is meant by the following terms:— <b>gimmer</b> , <b>shearling tup</b> , <b>dual purpose cattle</b> .   | 6                 |

## AGRICULTURE

### HIGHER GRADE—(FIRST PAPER)

Tuesday, 22nd March—9.30 A.M. to 11.30 A.M.

**Not more than FIVE questions should be attempted.**

*Answers should, wherever possible, be illustrated by suitable diagrams.*

*Mathematical tables are supplied.*

**A list of atomic weights will be found in the book of mathematical tables.**

**Marks will be deducted for bad spelling and bad punctuation, and for writing that is difficult to read.**

*The value attached to each question, or to each part of a question, is shown in the margin.*

Marks

1. (a) Explain what action, if any, occurs when the following are mixed :—(i) **ground limestone** and **superphosphate**, (ii) **basic slag** and **nitro-chalk**.

6

(b) Calculate from the formulae (i) the percentage of nitrogen in pure **ammonium nitrate** and (ii) the equivalent of **magnesium carbonate**.

6

(c) Calculate from the given analyses the number of tons of limestone A which has the same effect in neutralizing soil acidity as one ton of limestone B.

8

	A	B
	<i>per cent.</i>	<i>per cent.</i>
Calcium carbonate .. ..	90	83
Magnesium carbonate .. ..	nil	7
Non-neutralizing substances ..	10	10

2. (a) Explain how the following fertilizers are obtained and prepared :—(i) **nitrate of soda**, (ii) **muriate of potash**, (iii) **basic slag**.

2, 3, 3

(b) Discuss the factors which affect the quality of **farmyard manure**.

12

3. (a) Describe laboratory tests to determine whether a fertilizer contains (i) **potassium**, (ii) **phosphate**.

5, 5

(b) Describe in detail how you would conduct a field experiment to determine the effect on a potato crop of varying dressings of a compound potato fertilizer together with a constant dressing of farmyard manure.

10

4. (a) Name and describe **three** of the essential organic constituents of the food of farm livestock.

6

(b) From which constituents in its food can an animal build up (i) **fat**, and (ii) **protein** in its own body?

4

(c) Explain why the **total energy value** of a feeding stuff has little relation to its value as a food for livestock. (Reference may be made to the following data.)

10

	<i>Total energy</i> <i>Therms per lb.</i>	<i>Starch</i> <i>equivalent.</i>	<i>Protein</i> <i>equivalent.</i>
Oat straw .. ..	1.8	24	1
Oat grain .. ..	1.8	60	8

5. (a) Describe the two-stroke cycle in an internal combustion engine.

10

(b) **EITHER** (i) Make a labelled diagram of any type of diesel fuel-injection system and explain its working.

**OR** (ii) Describe, with suitable diagrams, a battery-coil ignition system for a four-cylinder petrol engine.

10

6. (a) (i) Sketch and explain the working of any type of mechanical universal joint.

6

(ii) Give one instance of the use of a universal joint in a farm implement or machine and explain why such a joint is necessary.

2, 2

(b) (i) Make a labelled sketch or sketches to illustrate the drive of the cutting mechanism of a binder which is driven from the main land wheel (often called the Bull Wheel).

5

Marks

(ii) If the radius of the bull wheel is 18 ins. and each knife section passes between two adjacent fingers when the binder moves forward approximately 2 ins., suggest suitable gear ratios in the drive. (Note.—In a binder each knife section in its reciprocating motion passes over two finger-spaces.)

5

7. (a) (i) Explain what is meant by the height of the water barometer and explain the relation between this height and the depth from which a lift pump can raise water.

3, 3

(ii) Give the meaning of the following terms :—voltage, ampere, watt, kilowatt-hour.

4

(b) Calculate the annual cost of the electrical energy required to pump 1,000 gallons of water per day from a well 10 feet below ground level to a tank 90 feet above ground level.

10

1 gallon of water weighs 10 lbs.

1 horse-power = 746 watts.

Efficiency of electric motor = 80 per cent.

Overall efficiency of pump and piping = 70 per cent.

Cost of electrical energy = 0.875d. per unit.

## AGRICULTURE

### HIGHER GRADE—(SECOND PAPER)

Tuesday, 22nd March—1.30 P.M. to 3.30 P.M.

**Not more than FIVE questions should be attempted.**

*Answers should, wherever possible, be illustrated by suitable diagrams.*

*Mathematical tables are supplied.*

**A list of atomic weights will be found in the book of mathematical tables.**

**Marks will be deducted for bad spelling and bad punctuation, and for writing that is difficult to read.**

*The value attached to each question, or to each part of a question, is shown in the margin.*

Marks

1. (a) Name **eight** chemical elements which growing plants require in appreciable quantity. Select **one** of these elements which is a metal and describe the effects on plants of a deficiency of it.

7

(b) Name **three** "trace elements" which are necessary for healthy growth of plants, and describe the effects of a deficiency of **one** of them.

7

(c) Explain the source and transformation of the energy which is stored in plants.

6

2. Make a comparison, under the following headings, of the two rotations given below :—(i) suitable climate, (ii) suitable soil, (iii) risk of pests and diseases, (iv) labour required, (v) artificial fertilizers required. 2 each

Make a list of the implements and hand tools required to carry out the field work in rotation A, and indicate the stages in the rotation at which each is in use.

10

Rotation A :—(1) oats, (2) turnips and swedes, (3) oats, (4) seeds hay and silage, (5) grass, (6) grass, (7) grass.

Rotation B :—(1) potatoes, (2) wheat, (3) turnips, swedes, sugar beet, (4) barley, (5) seeds hay, silage, (6) grass, (7) grass.

3. (a) Make a list of the advantages to be derived from **rotational grassland**.

6

(b) Compare (i) **Italian ryegrass** with **perennial ryegrass**, and (ii) **late-flowering red clover** with **wild white clover** so far as their suitabilities for inclusion in grass seed mixtures are concerned.

6

(c) Describe how a field may be laid down to grass, using a nurse crop.

8

4. Make a large sketch of the outline of a cow as seen from the side, and a corresponding sketch of the outline as seen from above. On both of these sketches show the position and outline of **ten** of the following parts of the body :—**anterior vena cava, bladder, bronchi, common bile duct, diaphragm, femur, liver, ovary, scapula, rumen, uterus**. State the function of each of the parts you select.

20

5. (a) Describe **two** of the following and indicate suitable control measures :—(i) **Take-all**, (ii) **Raan**, (iii) **Yellow rust**.

10

(b) Describe **Potato Eelworm Disease** under the following headings :—(i) symptoms, (ii) cause, (iii) life-history, (iv) control measures.

10

6. Describe and explain how (a) a **Gerber tester**, and (b) a **lactometer** can be used to give information regarding the composition of milk.

12, 8

7. (a) Explain **Mendel's First Law**, and describe the original experiments which substantiated it.

12

(b) (i) If a wheat plant has **no awns** (dominant) and **red chaff** (dominant), how could you find out whether it is pure or not?

4

(ii) Explain, with reasons, whether you would expect an **awned** (recessive) wheat with **white chaff** (recessive) to breed true if it is self-fertilized.

4

1700

the first of the year, the weather was very cold, and the wind was very strong, so that the ships could not go out to sea.

1701

the second of the year, the weather was very cold, and the wind was very strong, so that the ships could not go out to sea.

1702

the third of the year, the weather was very cold, and the wind was very strong, so that the ships could not go out to sea.

1703

the fourth of the year, the weather was very cold, and the wind was very strong, so that the ships could not go out to sea.

1704

the fifth of the year, the weather was very cold, and the wind was very strong, so that the ships could not go out to sea.

1705

the sixth of the year, the weather was very cold, and the wind was very strong, so that the ships could not go out to sea.

1706

the seventh of the year, the weather was very cold, and the wind was very strong, so that the ships could not go out to sea.

1707

the eighth of the year, the weather was very cold, and the wind was very strong, so that the ships could not go out to sea.

1708

the ninth of the year, the weather was very cold, and the wind was very strong, so that the ships could not go out to sea.

1709

the tenth of the year, the weather was very cold, and the wind was very strong, so that the ships could not go out to sea.

1710

the eleventh of the year, the weather was very cold, and the wind was very strong, so that the ships could not go out to sea.

1711

the twelfth of the year, the weather was very cold, and the wind was very strong, so that the ships could not go out to sea.

# SCOTTISH EDUCATION DEPARTMENT—1955

## 1. STATUTORY INSTRUMENTS—*contd.*

### (f) Miscellaneous

- Children and Young Persons (Scotland) Employment of Children in Entertainments. S.R. & O., 1947, No. 1660, S.67. 2*d.* (3½*d.*).  
 The School Meals Premises (Reimbursement of Minister of Works) (Scotland) Regulations, 1950. S.I. 1950, No. 576, S.39. 1*d.* (2½*d.*).  
 The Meals Service (Scotland) Regulations, 1953. S.I. 1953, No. 65, S.7. 3*d.* (4½*d.*).  
 School Health Service (Scotland) Regulations, 1947. S.R. & O., 1947, No. 415, S.13. 1*d.* (2½*d.*).  
 Educational Conferences (Scotland) Regulations, 1947. S.R. & O., 1947, No. 119, S.R. 1*d.* (2½*d.*).  
 Incidental Expenses (Scotland) Regulations, 1947. S.R. & O., 1947, No. 120, S.3. 1*d.* (2½*d.*).  
 The Contributions for Educational Services (Prescription of Areas) (Scotland) Regulations, 1951. S.I. 1951, No. 899, S.54. 2*d.* (3½*d.*).  
 Reports on Handicapped Children (Scotland) Order, 1947. S.R. & O., 1947, No. 1576, S.62. 2*d.* (3½*d.*).  
 Approved Schools (Form of Court Record) (Scotland) Regulations, 1949. S.I. 1949, No. 1637, S.114. 1*d.* (2½*d.*).  
 The Approved Schools (Contributions by Education Authorities) (Scotland) Regulations, 1953. S.I. 1953, No. 466, S.43. 2*d.* (3½*d.*).  
 The Educational Endowments (Prescription of Information) (Scotland) Regulations, 1951. S.I. 1951, No. 548, S.25. 2*d.* (3½*d.*).  
 The Register of Educational Endowments (Prescription of Contents) (Scotland) Order, 1951. S.I. 1951, No. 549, S.26. 2*d.* (3½*d.*).  
 The Education (Scotland) Advisory Council Order, 1952. S.I. 1952, No. 637. 2*d.* (3½*d.*).  
 The Exemptions (Potato Lifting) (Scotland) Regulations, 1952. S.I. 1952, No. 1147, S.52. 3*d.* (4½*d.*).

## 2. CIRCULARS

- Circular 30 (1952) (Relating to the Scottish Leaving Certificate Examination of 1953) (October, 1952). 1*s.* 0*d.* (1*s.* 1½*d.*).  
 Circular 76 (Education (Meals Service) (Scotland) Regulations) (June, 1946). 1*d.* (2½*d.*).  
 Circular 110 (Education (Scotland) Act, 1946. Reports on Handicapped Children (Scotland) Order) (July, 1947). 1*d.* (2½*d.*).  
 Circular 119 (The Central Institutions (Scotland) Grant Regulations, 1947). (October, 1947). 1*d.* (2½*d.*).  
 Circular 130 (Education Authorities (Scotland) Grant Regulations, 1948). (May, 1948). 1*d.* (2½*d.*).  
 Circular 151 (Education Authorities (Scotland) Grant Regulations, 1948) (April, 1949). 4*d.* (5½*d.*).  
 Circular 154 (The Education (Scotland) Act, 1949) (May, 1949). 6*d.* (7½*d.*).  
 Circular 183 (The Schools (Scotland) Code, 1950) (June, 1950). 2*d.* (3½*d.*).  
 Circular 188 (Schemes of Work for Secondary Departments) (Revised: December, 1950). 4*d.* (5½*d.*).  
 Circular 194 (Index to Education (Scotland) Act, 1946) (October, 1950). 4*d.* (5½*d.*).  
 Circular 202 (The Children and Young Persons (Scotland) Act, 1937) (October, 1951). 6*d.* (7½*d.*).  
 Circular 206 (Secondary Education. The Report of the Advisory Council) (March, 1951). 6*d.* (7½*d.*).  
 Circular 218 (Schools (Scotland) Code, 1950. The School Leaving Record (Scotland) Rules) (June, 1951). 2*d.* (3½*d.*).  
 Circular 224 (Visual and Aural Aids. The Report of the Advisory Council) (September, 1951). 3*d.* (4½*d.*).  
 Circular 235 (Scottish Leaving Certificate Examination—Additional Mathematical Subjects) (March, 1952). 4*d.* (5½*d.*).  
 Circular 239 (Scottish Leaving Certificate—Technical Subjects) (June, 1952). 4*d.* (5½*d.*).  
 Circular 247 (Scottish Leaving Certificate—Proposed Changes in the Examination in Commercial Subjects) (August, 1952). 1*s.* (1*s.* 1½*d.*).  
 Circular 249 (Scottish Leaving Certificate—Science) (October, 1952). 9*d.* (10½*d.*).  
 Circular 262 (Scottish Leaving Certificate Examination) (March, 1953). 9*d.* (10½*d.*).  
 Circular 268 (School Building) (June, 1953). 6*d.* (7½*d.*).  
 Circular 268(a) (School Building) (October, 1953). 2*d.* (3½*d.*).  
 Circular 270 (The Further Education (Scotland) Code, 1952) (June, 1953). 6*d.* (7½*d.*).  
 Circular 277 (Education Authority Bursaries (Scotland) Regulations, 1953) (November, 1953). 4*d.* (5½*d.*).  
 Circular 282 (The Teachers' Salaries (Scotland) Regulations, 1954) (March, 1954). 2*d.* (3½*d.*).

## 3. REPORTS

### Departmental

- Young Citizens at School. Report on experiments in Education for Living. 1*s.* (1*s.* 1½*d.*).  
 Educational Endowments in Scotland. Report of the Committee appointed in January, 1948. 2*s.* (2*s.* 2*d.*).  
 Report on Education in Scotland in 1954 (Cmd. 9428). 4*s.* (4*s.* 2*d.*).  
 Supply of Teachers. First Report of the Departmental Committee appointed by the Secretary of State. (Cmd. 8123.) 9*d.* (10½*d.*).  
 Supply of Teachers. Second Report of the Departmental Committee appointed by the Secretary of State. (Cmd. 8721). 1*s.* (1*s.* 1½*d.*).  
 Supply of Teachers of Mathematics and Science in Scotland. Report of the Committee appointed by the Secretary of State. (Cmd. 9419). 1*s.* 6*d.* (1*s.* 7½*d.*).

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1955

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To face page 10]

LOWER HIST.  
(SECTION I)

# SCOTTISH LEAVING CERTIFICATE EXAMINATION 1955

---

## HISTORY LOWER GRADE

Thursday, 10th March—9.30 a.m. to 12 noon

### SECTION I

(To be attempted by all candidates)

---

### FILL THIS IN FIRST

Name of School .....

Name of Pupil .....

TO BE PINNED INSIDE THE CANDIDATE'S BOOK OF ANSWERS AND THUS  
SENT TO THE DEPARTMENT.

[OVER



2

-

## SECTION 1 (b)

Give the century, B.C. or A.D., of **TEN** of the following, indicate who or what each was, and say why each is important in history. Answers must be written in the space provided after each name. (15)

(1) Augustus Caesar (      century      ).....

.....

.....

(2) The Black Death (      century      ).....

.....

.....

(3) Graham of Claverhouse, Viscount Dundee (      century      ).....

.....

.....

(4) Lady Jane Grey (      century      ).....

.....

.....

(5) Magna Carta (      century      ).....

.....

.....

(6) Marco Polo (      century      ).....

.....

.....

(7) The Massacre of St. Bartholomew's Day (      century      ).....

.....

.....

[TURN OVER

(8) The Voyage of the Mayflower (           century           ).....

.....

.....

(9) The Murder of James I of Scotland (           century           ).....

.....

.....

(10) Pericles (           century           ).....

.....

.....

(11) Cardinal Richelieu (           century           ).....

.....

.....

(12) St. Ninian (           century           ).....

.....

.....

*To face page 12]*

**SCOTTISH LEAVING CERTIFICATE EXAMINATION  
1955**

---

**HISTORY  
HIGHER GRADE—I**

**Thursday, 10th March—9.30 a.m. to 12 noon**

**SECTION I**

*(To be attempted by all candidates)*

---

**FILL THIS IN FIRST**

*Name of School* .....

*Name of Pupil* .....

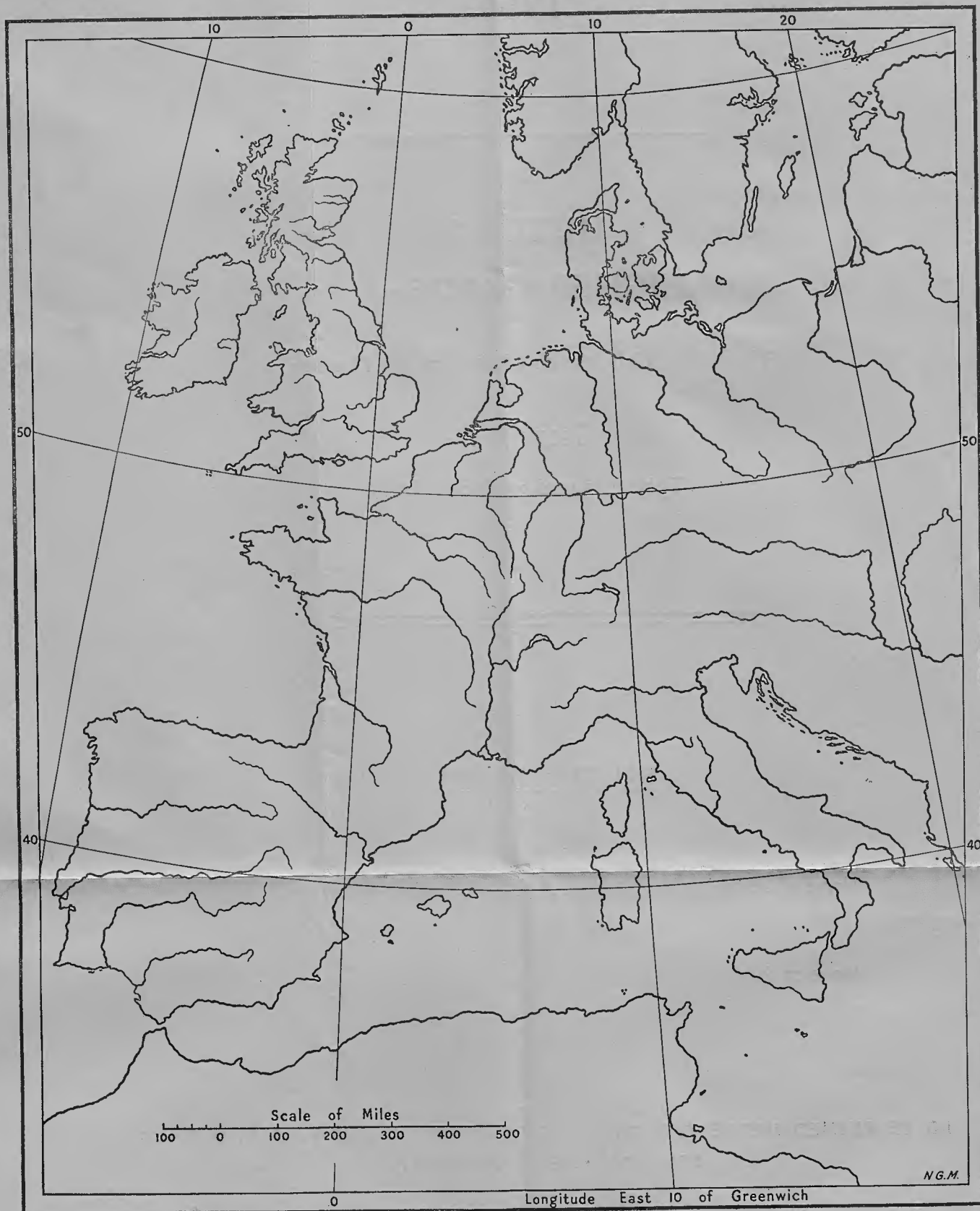
**TO BE PINNED INSIDE THE CANDIDATE'S BOOK OF ANSWERS AND THUS  
SENT TO THE DEPARTMENT.**

[OVER

## SECTION 1 (a)

On the accompanying map mark the position of **TEN** of the following with a cross and add the appropriate number as given below :—

- |                  |                  |                        |
|------------------|------------------|------------------------|
| (1) Bannockburn. | (6) Durham.      | (11) Portsmouth.       |
| (2) Calais.      | (7) Londonderry. | (12) Cape St. Vincent. |
| (3) Canterbury.  | (8) Malta.       | (13) Scone.            |
| (4) Corunna.     | (9) Norwich.     | (14) Whithorn.         |
| (5) Derby.       | (10) Paris.      | (15) Windsor.          |



## SECTION 1 (b)

Give the century, B.C. or A.D., of each of the following, indicate who or what each was, and say why each is important in history. Answers must be written in the space provided after each name. (15)

(1) Thomas Becket (            century            ).....

.....

.....

(2) The Battle of Bosworth (            century            ).....

.....

.....

(3) William Caxton (            century            ).....

.....

.....

(4) Cnut (            century            ).....

.....

.....

(5) The Sailing of the Mayflower (            century            ).....

.....

.....

(6) The Parliament of Simon de Montfort (            century            ).....

.....

.....

(7) The Bill of Rights (            century            ).....

.....

.....

[TURN OVER

(8) Sir James Young Simpson (            century            ) .....

(9) James Watt (            century            ) .....

(10) John Wilkes (            century            ) .....

# Commercial Subjects

## HIGHER GRADE—TYPEWRITING

### SECOND PAPER

Thursday, 24th March—1.40 P.M. to 3.15 P.M.

#### INSTRUCTIONS TO CANDIDATES

1. Read carefully the instructions at the head of each exercise.
2. Any defect in the machine should be pointed out to the supervising officer who will send to the examiners a certificate giving particulars of the defect and of the loss of time caused thereby.
3. Each exercise should be begun on a fresh page.
4. Any spoiled work should be cancelled by drawing a line through it.
5. At the close of the examination you will receive from the supervising officer your typescripts of the Copying and Accuracy Tests. These must then be inserted in your examination book, along with your other typescripts, and handed to the supervising officer.
6. The value attached to each question is shown in brackets after the question.

#### QUESTION 3

Type your name, school and grade at the top of the sheet or sheets.

Answers to the following questions are to be typed on quarto paper.

Number your answers to correspond with the questions.

(a) Give what are, in your opinion, the best line-end divisions of the following words :—

Directions ; substantial ; electronic ; reference ; treasurer ;  
monotonous.

(b) State **three** purposes for which you would use the variable line spacer (or interliner).

(c) What steps would you take to secure the maximum service from carbon paper ? (12)

## QUESTION 4

1. Type your name, school and grade on the back of the sheets in the top left-hand corner.

2. Set out the following letter neatly and attractively on quarto paper, with one carbon copy. Insert to-day's date and your teacher's and your own initials as dictator and typist respectively. Make any necessary corrections.

Bureau of Statistics,  
Woodstock Road,  
Oxford.

W. B. Cassell, Esq., M.A., Ph.D.,  
The Moorings,  
Whitchurch, Lancs.

Dear Sir,

Changes in National Income

We are in receipt of your letter of 12<sup>th</sup> Feb., 1955, and have been able to obtain from official publications certain of the information you require. [Published figures show that between 1951 and ~~on~~ 1952 the National Income of most countries in money terms continued to increase but at a slower rate than in previous years.]

N.P.

b.c.

run on

①

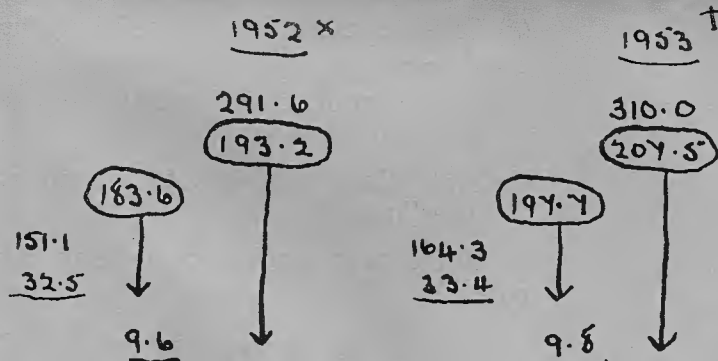
caps.

N.P.

The post-war expansion of industrial prodn. suffered a decided ~~set~~ check & hence there was a decline in the growth of national incomes. Although the U.K., like most countries in Western Europe, showed an increase of approx. 5% in national income, some part of the increase was due to continued rises in prices. Elsewhere prices started to fall and countries such as Belgium and Switzerland showed a larger increase in real terms than in money values. [With ref. to your second question, details of the distribution of the gross national product in the U.S. are given in the following table.]

National Income, U.S., by Distributive Shares  
(in \$ '000 million)

National Income  
Compensation of Employees  
Wages and Salaries  
Private  
Government  
Other Benefits



	1952	1953
Income from trades and professions	41.1	39.5
Business and professional	26.3	27.0
Farm	14.8	12.5
Rents from real estate	10.0	10.5
Corporation profits and inventory valuation adjustment	40.2	44.7
Corporation profits	39.2	45.8
Inventory valuation adjustment	1.0	1.1
Net Interest	7.1	4.7

\* Source - U.S. Department of Commerce.

+ Estimate based on incomplete data

As you are aware, estimates of national income, along with analyses of national expenditure, are used to an ever-increasing extent in the formulation of government policy. They provide evidence on which decisions can be taken on matters such as the allocation of resources between various uses, the amount of capital investment, the level of taxation, and so on. [Should you require fuller particulars, the most convenient sources are the publications of the Statistical Office of the U.N.]

The figures given therein are based largely on appropriate national statistics.

Yours ffly.,  
Bure. of Stats.,  
Director

## QUESTION 5

1. Type your name, school and grade on the back of the sheet in the top left-hand corner.
2. Display attractively the following statement on quarto paper. All ruling is to be done by the machine.

Nicholson, Benham and Co., Ltd

Statement of net capital employed in the  
business as at 31st Dec., 1954.

Fixed Assets	£	£
Plantations and Factories, Ships, Buildings and Machinery less Allowances for Depreciation	4,869,900	
Trade Investments	<u>237,900</u>	5,107,800
Current Assets	£	
Cash and Marketable Securities	623,400	
Sundry Debtors and Items Prepaid	2,475,300	
Stocks of Plantation Produce	1,323,100	
Stocks of Merchandise and Stores	<u>3,899,200</u>	
Total of day-to-day Assets		8,321,000
Current Liabilities		
Dividends Payable	193,300	
Sundry Creditors and Loans	2,769,400	
Bank Overdrafts	11,300	
Government Taxes on Income	<u>1,250,200</u>	
Total of day-to-day Debts	4,224,200	
Sundry Provisions	<u>380,000</u>	
Total of Current Liabilities		<u>4,604,200</u>
Net Current Assets		<u>3,716,800</u>
Total Assets in Use		<u>8,824,600</u>
External Liabilities		
Debentures	1,000,000	
Outside Shareholders in Subsidiary Companies	<u>540,100</u>	
		<u>1,540,100</u>
Actual net capital employed in the business		<u><u>7,284,500</u></u>

**Commercial Subjects**  
**HIGHER GRADE—TYPEWRITING**  
**FIRST PAPER**

Thursday, 24th March—1 P.M. to 1.30 P.M.

**INSTRUCTIONS TO CANDIDATES**

1. Read carefully the instructions at the head of each exercise.
2. Any defect in the machine should be pointed out to the supervising officer who will send to the examiners a certificate giving particulars of the defect and of the loss of time caused thereby.
3. Each exercise should be begun on a fresh page.
4. Any spoiled work should be cancelled by drawing a line through it.
5. The tests are to be worked in the following order :—
  - (1) The Copying Test.
  - (2) The Accuracy Test.
6. The value attached to each question is shown in brackets after the question.

## QUESTION 1. COPYING TEST

### Instructions. (Not to be typed.)

Type your name, school and grade at the top of a foolscap sheet.

Set the marginal stops for a 60-space line.

Make one copy, in **double** line-spacing, of the passage printed below.

No credit will be given for completing this test in less than the time allowed.

No part of the test is to be re-typed.

The use of an eraser is **not** permitted.

At the conclusion of this test, your typescript is to be handed to the supervising officer.

In the woollen industry the imitation of cotton was slow. By the 1780's worsted-spinning by water-power was beginning, and Leeds had steam-powered mills by 1800. On the other hand, in the south-west of England both the Jenny and the flying-shuttle seem to have been novelties as late as the mid 1790's. Throughout the first quarter of the 19th century power-weaving remained experimental in all woollen areas. In worsted-weaving power was gaining ground by the 1830's, but wool proper remained hand-woven, and until the 1850's some branches continued to employ a big proportion of hand-loom weavers. In general the penetration of the woollen industries by capitalist methods was faster than the adoption of mechanical production.

In the Irish linen industry cheap labour retarded mechanization. In the United Kingdom, where labour was dearer and cotton an alternative cheap fabric, linen could survive only by copying the methods of Lancashire. By the late 1780's Kendrew and Porthouse of Darlington and Marshall of Leeds were adapting cotton-spinning machines to the special requirements of flax. Professor Hamilton shows (*Industrial Revolution in Scotland*, p. 107) that fine flax yarns were hand-spun until after 1825 when Kay showed that preliminary steeping enabled flax to be drawn into finer threads. Of linen-weaving he writes (*op. cit.*, p. 112) "machinery came much more slowly." (13)

## QUESTION 2. ACCURACY TEST

### Instructions. (Not to be typed.)

Type your name, school and grade at the top of a foolscap sheet.

Set the marginal stops for a 60-space line.

Set the line-space lever for double spacing.

The whole of the passage printed below may be attempted, but no additional marks will be gained by typing any part of the passage a second time.

The use of an eraser is **not** permitted.

At the conclusion of this test your typescript is to be handed to the supervising officer.

	<i>Strokes</i>
A sound, sorrowful and startling like the sigh of some immense creature, travelling across the starless space, passed above the vertical and lofty spars of the motionless brig. It grew louder, then suddenly ceased for a moment, and the taut rigging of the brig was heard vibrating its answer in a singing note to this threatening murmur of the winds. A long and slow undulation lifted the level of the waters, as if the sea had drawn a deep breath of anxious suspense. The next minute an immense disturbance leaped out of the darkness upon the sea, kindling upon it a livid clearness of foam, and the first gust of the squall boarded the brig in a stinging flick of rain and spray. As if overwhelmed by the suddenness of the fierce onset, the vessel remained for a second upright where she floated, shaking with tremendous jerks from trucks to keel; while high up in the night the invisible canvas was heard rattling and beating about violently.	65 143 221 295 371 445 513 592 671 745 818 887 952
Then, with a quick double report, as of heavy guns, both topsails filled at once and the brig fell over swiftly on her side. Watt was thrown headlong against the skylight, and Fowler, who had encircled the weather rail with his arm, felt the vessel under his feet dart forward smoothly, and the deck become less slanting—the speed of the brig running off a little now, easing the overturning strain of the wind upon the distended surfaces of the sails. It was only the fineness of the little vessel's lines and the perfect shape of her hull that saved the canvas, and perhaps the spars, by enabling the ready craft to get way upon herself with such lightning-like rapidity. Fowler drew a long breath and yelled jubilantly at Watt who was struggling up against wind and rain to his commander's side.	1026 1104 1182 1254 1330 1407 1490 1563 1636 1707 1754
The brig seemed to sail through undulating waves that passed swishing between the masts and swept over the decks with the fierce rush and noise of a cataract. From every spar and every rope a ragged sheet of water streamed flicking to leeward. The overpowering deluge seemed to last for an age; became unbearable—and, all at once, stopped. In a couple of minutes the shower had run its length over the brig and now could be seen like a straight grey wall, going away into the night under the fierce whispering of dissolving clouds.	1825 1899 1970 2040 2114 2188 2269 (35) 2290



## **Commercial Subjects**

### **LOWER GRADE—TYPEWRITING**

#### **SECOND PAPER**

Thursday, 24th March—1.40 P.M. to 3.15 P.M.

#### **INSTRUCTIONS TO CANDIDATES**

1. Read carefully the instructions at the head of each exercise.
2. Any defect in the machine should be pointed out to the Supervising Officer who will send to the examiners a certificate giving particulars of the defect and of the loss of time caused thereby.
3. Each exercise should be begun on a fresh page.
4. Any spoiled work should be cancelled by drawing a line through it.
5. At the close of the examination you will receive from the supervising officer your typescripts of the Copying and Accuracy Tests. These must then be inserted in your examination book, along with your other typescripts, and handed to the supervising officer.
6. The value attached to each question is shown in brackets after the question.

## QUESTION 3

1. Type your name, school and grade on the back of the sheets in the top left-hand corner.

2. Set out the following letter neatly and attractively on quarto paper, with one carbon copy. Insert to-day's date. Make any necessary corrections.

Mackay and Weston, Ltd.

Brighton Works,  
Newquay,  
Durham.

Ref: EZ/409

R. N. Plant, Esq., F.C.A.,  
44 Basinghall Street,  
London, E.C. 2.

Dear Sir,

### Holdings of Share Capital

As you suggested, we have made an analysis of the holdings of different classes of shares. The following statement shows how the ordinary share capital of this company is distributed.

Class	Nominal Value of Share Holdings £	Number of Shareholders In each class	Cumulative Total
1	1 to 100	6,629	6,629
2	101 to 200	5,572	12,201
3	201 to 300	3,114	15,315
4	301 to 400	1,926	17,241
5	401 to 500	2,683	19,924
6	501 to 1000	1,864	21,788
7	1001 to 2000	545	22,333
8	2001 to 5000	295	22,628
9	Over 5000	148	22,776
		<u>22,776</u>	

You will observe that 55% of the ordinary shareholders, or over 12,000 individuals, each own no more than £200 in ordinary shares and that the number of members who hold over £1000 in ordinary shares is only one thousand out of a total of nearly 23,000. NP [Although the decision to increase the rate of dividend from 11% to 12½% by the payment of a special

bonus of  $1\frac{1}{2}\%$  was the subject of adverse criticism in certain quarters, ~~that~~ <sup>these</sup> speakers tend to overlook the amounts which have been spent on development. During the last four years, the following expenditure has been incurred :-

On Land and Buildings	£ 2,906,600
On Plant, Machinery and Equipment	£ 8,071,300
	<u>£ 10,977,900</u>

These are large figures and the ordinary shareholder who has provided the funds, whether by subscribing new capital or by allowing profits to remain in the business, is surely entitled to a reasonable return on his money. Whereas in 1949, when we paid a dividend of  $11\%$ , the return on the capital employed in the business was  $5.08\%$ , in 1953, when the higher dividend was paid, the return on the same basis was only  $4.48\%$ .

Copies of the latest directors' report and statement of accounts are enclosed.

Yours faithfully,  
Mackay and Weston, Ltd  
Director

Enc.

## QUESTION 4

1. Type your name, school and grade on the back of the sheet in the top left-hand corner.
2. Display attractively the following table and rule in red ink.

Analysis of Productivity for quarter ending  
3rd April, 1954

Milling Dept  
Production

Week ending	Average no. of workers	Hours	Basic Units	Excess Units	Total Units	Index of Efficiency
Jan. 9th	8.9	394	7,543	943	8,486	71
16th	9.0	410	8,069	821	8,890	73
23rd	8.6	385	7,244	833	8,077	69
30th	8.7	390	7,759	787	8,546	72
Feb. 6th	8.9	402	8,321	780	9,101	77
13th	9.0	408	8,014	701	8,715	73
20th	8.5	382	7,962	632	8,594	73
27th	8.4	388	7,762	569	8,331	72
Mar. 6th	8.7	391	8,415	492	8,907	75
13th	8.9	396	9,587	473	10,060	89
20th	9.0	407	8,847	446	9,293	80
27th	9.0	410	8,233	405	8,638	73
Apr. 3rd	8.8	399	7,964	368	8,332	72

(25)

## **Commercial Subjects**

### **LOWER GRADE—TYPEWRITING**

#### **FIRST PAPER**

Thursday, 24th March—1 P.M. to 1.30 P.M.

#### **INSTRUCTIONS TO CANDIDATES**

1. Read carefully the instructions at the head of each exercise.
2. Any defect in the machine should be pointed out to the supervising officer who will send to the examiners a certificate giving particulars of the defect and of the loss of time caused thereby.
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  - (1) The Copying Test.
  - (2) The Accuracy Test.
6. The value attached to each question is shown in brackets after the question.

**QUESTION 1. COPYING TEST****Instructions. (Not to be typed)**

Type your name, school and grade at the top of a quarto sheet.

Set the marginal stops for a 60-space line.

Make one copy, in **double** line-spacing, of the passage printed below.

No credit will be given for completing this test in less than the time allowed.  
No part of the test is to be re-typed.

The use of an eraser is **not** permitted.

At the conclusion of this test, your typescript is to be handed to the Supervising Officer.

The yield of silver from America has of recent years been enormously increased owing to the discovery of very productive mines. From the years 1849 to 1858, the yield of silver from American mines was of the value of £10,000 per annum. About the year 1861 the yield began to increase; in the year 1873 it had reached the value of £7,150,000; in the year 1882 the yield was £9,360,000, and since that time the annual production has reached as high a value as £23,000,000.

This has caused a serious fall in the value or purchasing power of silver, and is occasioning great anxiety and inconvenience to those countries which, like India, have silver for their standard currency. Gold is our standard currency, and is the only legal tender for the payment of debts of more than 40s. in amount. The value of silver has already declined from 60*d.* an ounce to 42*d.* an ounce, or 30 per cent. (October, 1888). That is to say, 13 rupees instead of 10 rupees have to be supplied for every pound sterling.

(15)

## QUESTION 2. ACCURACY TEST

### Instructions. (Not to be typed)

Type your name, school and grade at the top of a foolscap sheet.

Set the marginal stops for a 60-space line.

Set the line space lever for double spacing.

The whole of the passage printed below may be attempted, but no additional marks will be gained by typing any part of the passage a second time.

The use of an eraser is **not** permitted.

At the conclusion of this test your typescript is to be handed to the Supervising Officer.

	<i>Strokes</i>
We used to keep our coal in the bottom part of the cupboard, and,	67
when any was wanted, we had to climb over the bed, fill a shovelful, and	140
then crawl back. It was an exciting moment when we reached the middle	211
of the bed. We would hold our breath, fix our eyes upon the shovel, and	284
poise ourselves for the last move. The next instant, we, and the coals, and	361
the shovel, and the bed would be all mixed up together.	418
 I have heard of people going into raptures over beds of coal. We	485
slept in one every night, and were not in the least stuck up about it.	556
 But our attic, unique though it was, had by no means exhausted the	624
architect's sense of humour. The arrangement of the whole house was a	695
marvel of originality. All the doors opened outwards, so that if any one	769
wanted to leave a room at the same moment that you were coming downstairs	843
it was unpleasant for you. There was no ground-floor, its ground-floor	915
belonged to a house in the next court, and the front door opened direct	987
upon a flight of stairs leading down to the cellar. Visitors, on entering	1,062
the house, would suddenly shoot past the person who had answered the door	1,136
to them, and disappear down these stairs. Those of a nervous temperament	1,210
used to imagine that it was a trap laid for them, and would shout murder,	1,284
as they lay on their backs at the bottom, till somebody came and picked	1,356
them up.	1,365
 It is a long time ago, now, that I last saw the inside of an attic.	1,435
I have tried various floors since, but I have not found that they have	1,506
made much difference to me. Life tastes much the same, whether we quaff	1,578
it from a golden goblet, or drink it out of a stone mug. The hours come	1,651
laden with the same mixture of joy and sorrow, no matter where we wait for	1,726
them. A waistcoat of broadcloth or of fustian is alike to an aching	1,795
heart, and we laugh no merrier on velvet cushions than we did on wooden	1,865
chairs. Often have I sighed in those low ceilinged rooms, yet disappoint-	1,940
ments have come neither less nor lighter since I quitted them. Life works	2,015
upon a compensating balance, and the happiness we gain in one direction we	2,090
lose in another. As our means increase, so do our desires: and we ever	2,162
stand midway between the two. When we reside in an attic, we enjoy a	2,232
supper of fried fish and stout.	(35) 2,263

EXHIBIT 100

1. The first part of the report is a general statement of the purpose and scope of the study. It is followed by a brief review of the literature on the subject. The next section is a description of the methods used in the study. This is followed by a presentation of the results of the study. The final section is a discussion of the results and their implications.

2. The purpose of the study was to determine the effect of the independent variable on the dependent variable. The scope of the study was limited to the following conditions: (a) the subjects were all male college students; (b) the study was conducted in a laboratory setting; (c) the study was limited to the following variables: (1) the independent variable was the amount of time spent on the task; (2) the dependent variable was the number of errors made.

3. The methods used in the study were as follows: (a) the subjects were randomly assigned to two groups; (b) the subjects in the first group were given a task to complete within a specified time limit; (c) the subjects in the second group were given the same task but without a time limit; (d) the number of errors made by each subject was recorded.

4. The results of the study showed that the subjects in the first group made significantly more errors than the subjects in the second group. This suggests that the amount of time spent on the task has a significant effect on the number of errors made.

5. The implications of the results are that the amount of time spent on a task can have a significant effect on the quality of the work. This suggests that time management is an important factor in determining the quality of work.

6. The limitations of the study are that the subjects were all male college students, the study was conducted in a laboratory setting, and the study was limited to the following variables: (1) the independent variable was the amount of time spent on the task; (2) the dependent variable was the number of errors made.

7. The conclusions of the study are that the amount of time spent on a task has a significant effect on the number of errors made. This suggests that time management is an important factor in determining the quality of work.

8. The recommendations of the study are that time management should be emphasized in the workplace. This can be done by providing training in time management techniques and by setting realistic deadlines.

9. The future research needs to be conducted in order to determine the effect of other variables on the number of errors made. This could include the effect of the subject's age, the subject's experience, and the subject's motivation.

10. The overall conclusion of the study is that the amount of time spent on a task has a significant effect on the number of errors made. This suggests that time management is an important factor in determining the quality of work.

LOWER II MATHEMATICS  
(SECTION I, QN. 4)

*To face page 30]*

**SCOTTISH LEAVING CERTIFICATE EXAMINATION**  
**1955**

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**MATHEMATICS**  
**LOWER GRADE—II**  
**GRAPH**

SECTION I—QUESTION 4

Monday, 14th March—1.0 p.m. to 3.30 p.m.

---

**FILL THIS IN FIRST**

Name of School .....

Name of Pupil .....

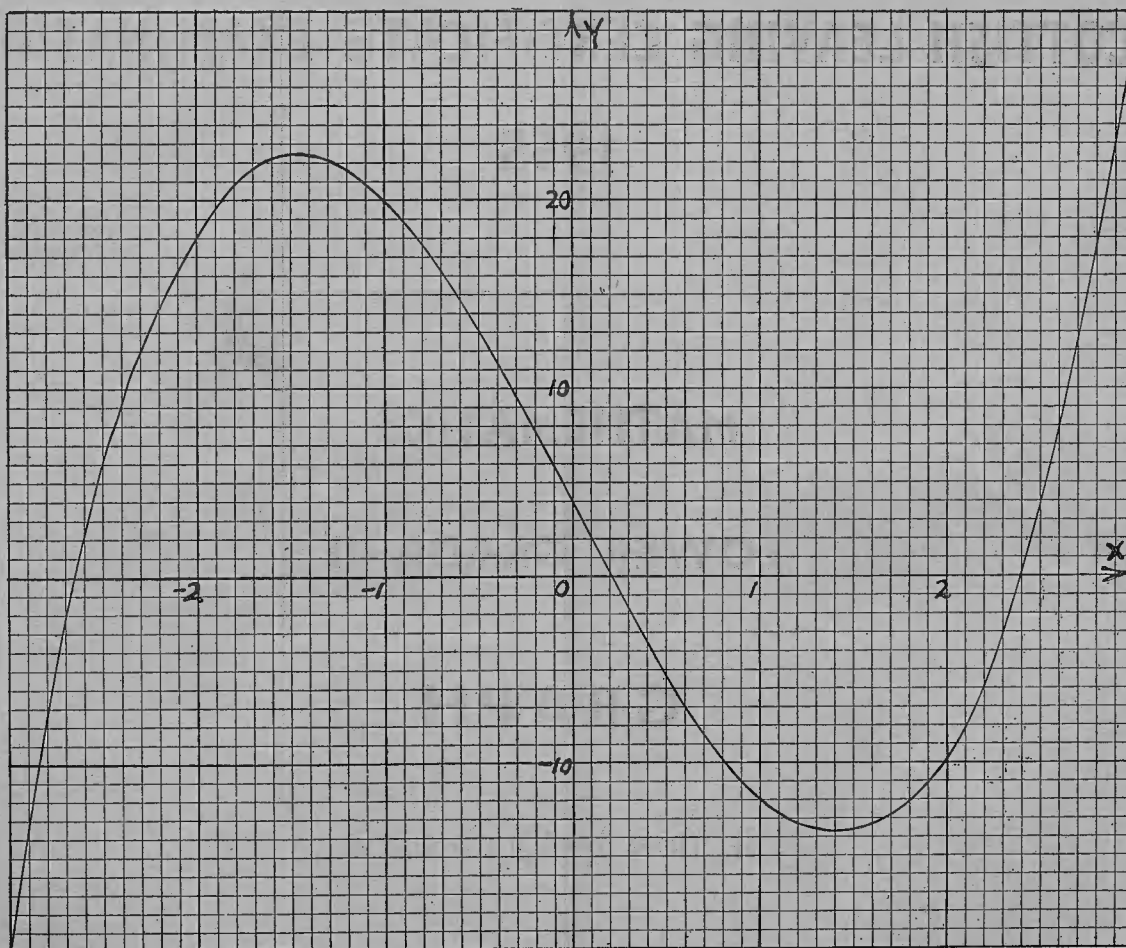
TO BE PINNED INSIDE THE CANDIDATE'S BOOK OF ANSWERS AND THUS  
SENT TO THE DEPARTMENT.

[OVER

## SECTION I, QUESTION 4—COMPULSORY

All the answers to this question must be written on this sheet.

The graph of a function of  $x$  is shown below for values of  $x$  from  $-3$  to  $+3$ .



Reading values of  $x$  to the second decimal place and values of the function to the first decimal place, find from the graph:—

- (i) the minimum turning value of the function : .....
- (ii) the value of the function when  $x = -1.6$  : .....
- (iii) the values of  $x$  for which the function is zero : .....
- (iv) the range of positive values of  $x$  for which the function is negative : .....

It is known that the function is of the form  $3x^3 + ax + b$ , where  $a$  and  $b$  are constants. Find the values of  $a$  and  $b$  : .....

HIGHER GEOG. I.  
(O.S. Map)

SCOTTISH LEAVING CERTIFICATE EXAMINATION, 1955

GEOGRAPHY  
HIGHER GRADE—(FIRST PAPER)

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ORDNANCE SURVEY MAP

[OVER





3555/A

### THE NATIONAL GRID

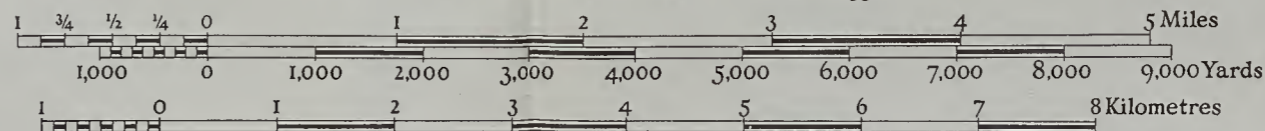
To refer to a particular point:- (1) Read, for each half of the reference, the double figures printed in large type in the margins, which denote tens of Kilometres and Kilometres. (2) Then, to obtain reading to nearest 100 metres, estimate position of point in tenths from the grid lines, which are 1000 metres apart.

THUS TO GIVE A NORMAL NATIONAL GRID REFERENCE ON THIS SHEET.

EXAMPLE		Sgòr Mòr $\Delta$ 2666	
East	North	East	North
Take west edge of square in which point lies and read the large figures printed opposite this line on north or south margins.	Take south edge of square in which point lies and read the large figures printed opposite this line on east or west margins.	00	91
Estimate tenths Eastwards	Estimate tenths Northwards	7	4
		007	914
Reference		007914	

Scale: One Inch to One Statute Mile =  $1/63360$

ORDNANCE SURVEY 1951.



Heights are in feet above Mean Sea Level. Contours are at 50 feet vertical intervals

True North at the West edge of this sheet is  $01^{\circ}28'$  E. of Grid North

Annual change in Magnetic Variation is about  $8'$  E.

Crown Copyright Reserved

HIGHER GEOG. I  
(MAP)

**SCOTTISH LEAVING CERTIFICATE EXAMINATION**  
**1955**

---

**GEOGRAPHY**  
**HIGHER GRADE (FIRST PAPER)**

---

**MAP**

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FILL THIS IN FIRST

Name of School

Name of Pupil

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SENT TO THE DEPARTMENT.

[OVER

# EUROPE and the MEDITERRANEAN LANDS.



LOWER GEOG.  
(MAPS)

**SCOTTISH LEAVING CERTIFICATE EXAMINATION**  
**1955**

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**GEOGRAPHY**  
**LOWER GRADE**

---

**MAPS**

---

FILL THIS IN FIRST

*Name of School* .....

*Name of Pupil* .....

**TO BE PINNED INSIDE THE CANDIDATE'S BOOK OF ANSWERS AND THUS  
SENT TO THE DEPARTMENT.**

(OVER

# THE WORLD

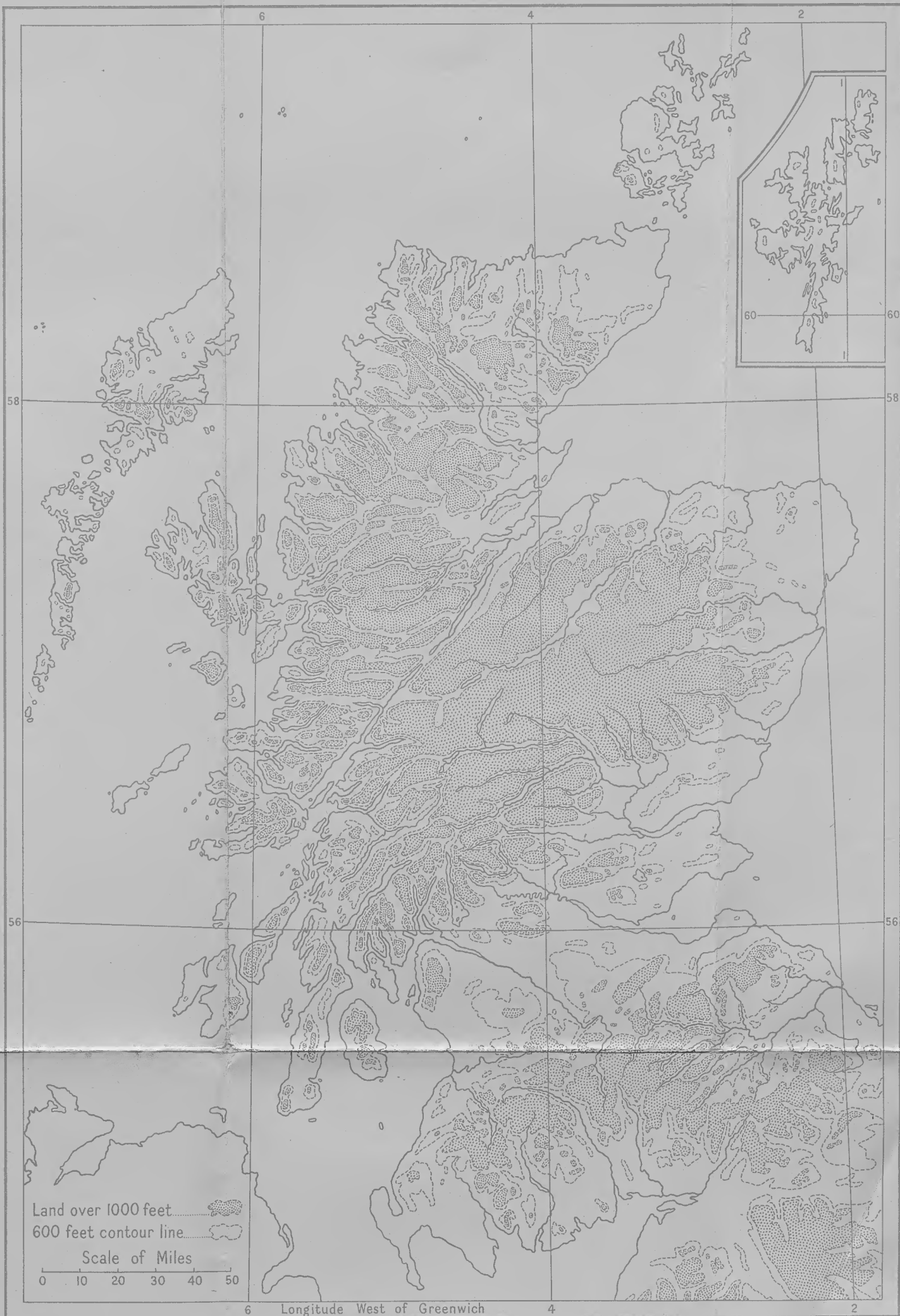


## Items for Questions

2 a are marked in BLACK

2 c " " " RED

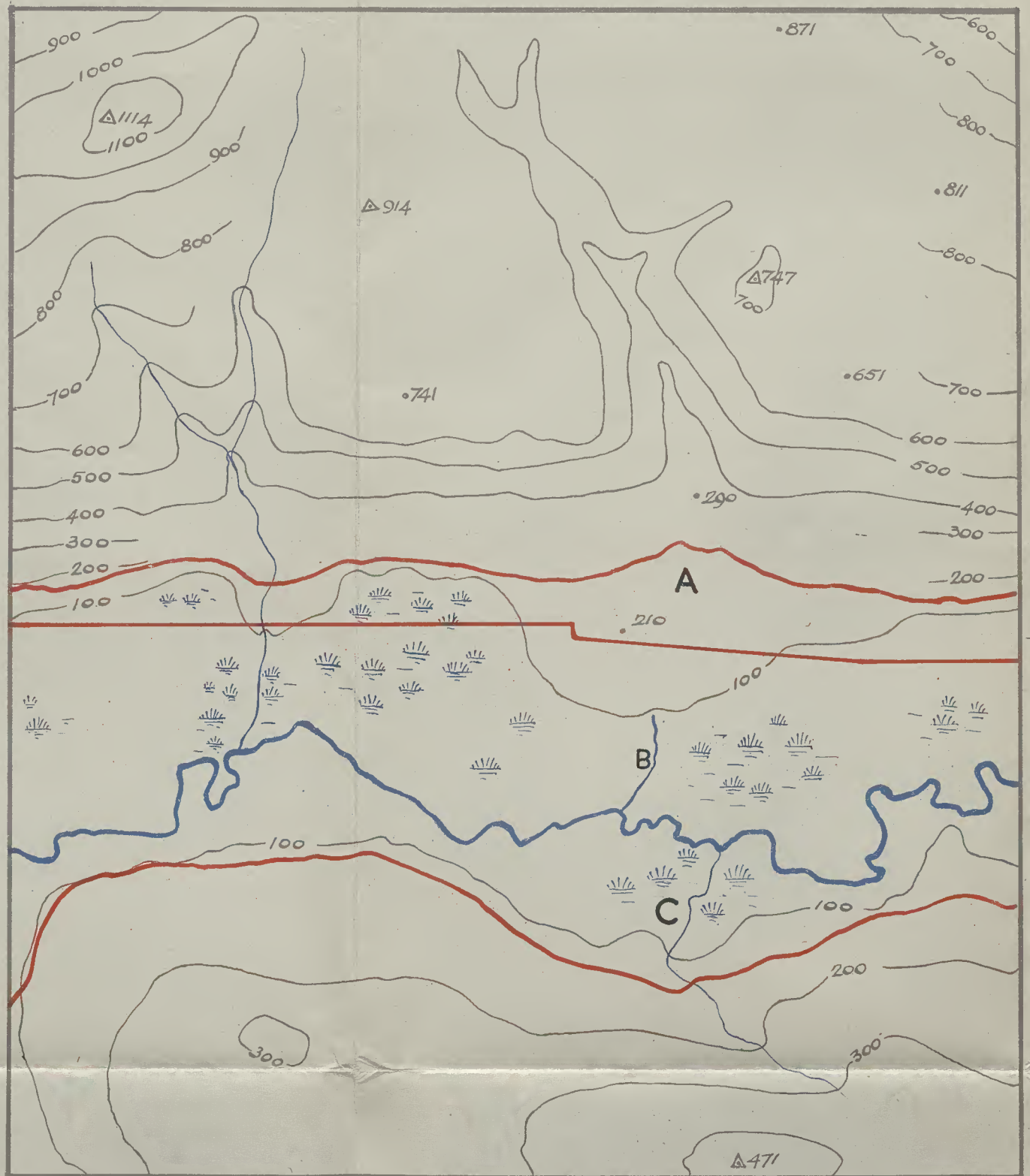
2 d " " " BLUE



Matthew,

Edin.

# CONTOUR MAP OF A REGION



Scale 1 : 25,000

Contours  
Roads  
Rivers

*To face page 14]*

**SCOTTISH LEAVING CERTIFICATE EXAMINATION  
1955**

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**HISTORY  
HIGHER GRADE—II**

**Thursday, 10th March 1.30 p.m. to 4.0 p.m.**

**SECTION I**

*(To be attempted by all candidates)*

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**FILL THIS IN FIRST**

*Name of School*.....

*Name of Pupil*.....

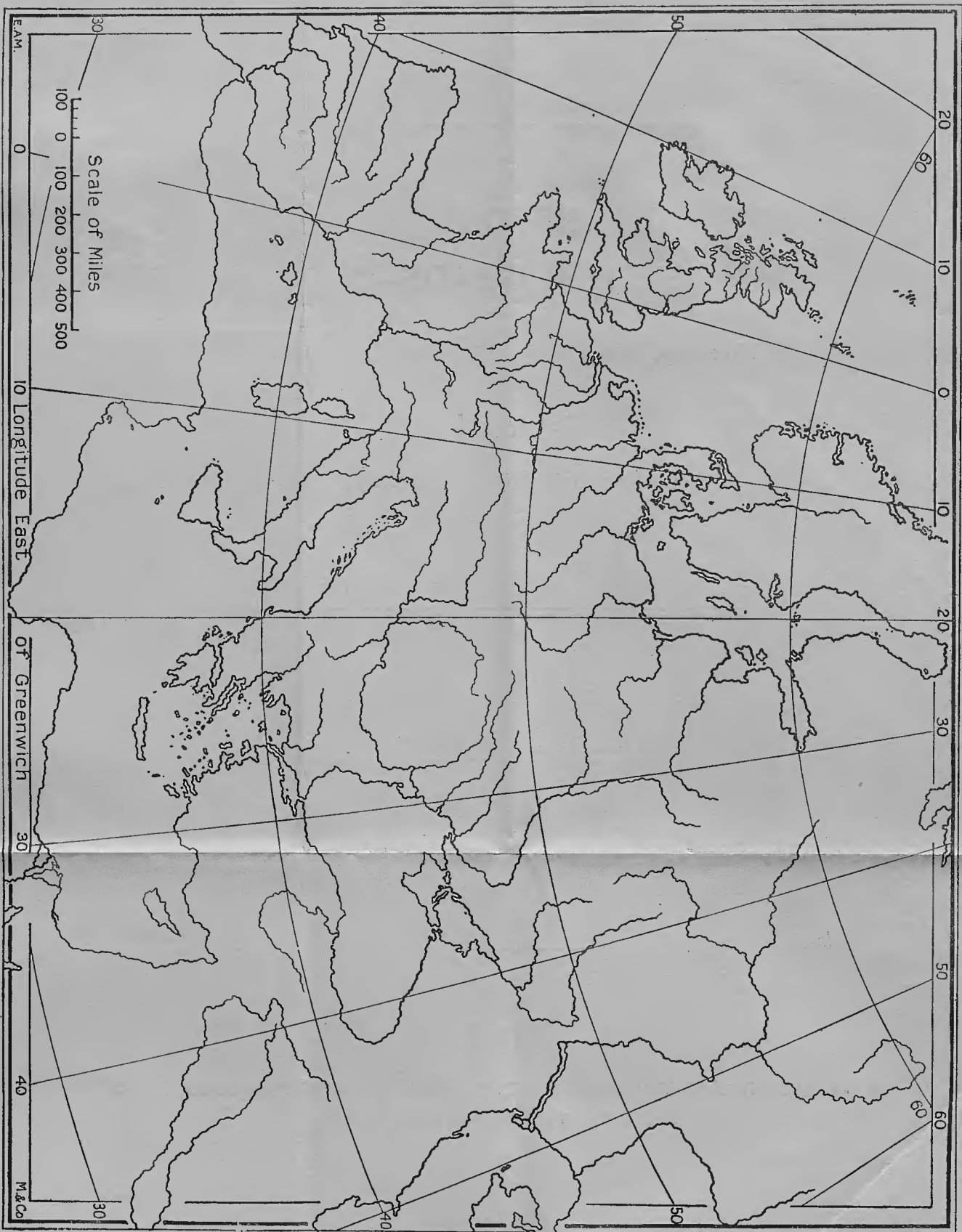
**TO BE PINNED INSIDE THE CANDIDATE'S BOOK OF ANSWERS AND THUS  
SENT TO THE DEPARTMENT.**

[OVER

# SECTION 1 (a)

On the accompanying map mark the position of **TEN** of the following with a cross and add the appropriate number as given below :—

- (1) Adrianople.
- (2) Antwerp.
- (3) Bordeaux.
- (4) Danzig.
- (5) Florence.
- (6) Geneva.
- (7) Granada.
- (8) Jerusalem.
- (9) Leipzig.
- (10) Lübeck.
- (11) Metz.
- (12) Palermo.
- (13) Rhodes.
- (14) St. Petersburg.
- (15) Thebes.



## SECTION 1 (b)

Give the century, B.C. or A.D., of each of the following, indicate who or what each was, and say why each is important in history. Answers must be written in the space provided after each name. (15)

(1) The Battle of Actium (      century      ).....

.....

.....

(2) Alexander the Great (      century      ).....

.....

.....

(3) St. Augustine of Hippo (      century      ).....

.....

.....

(4) Clovis (      century      ).....

.....

.....

(5) Otto the Great (      century      ).....

.....

.....

(6) Jean Jacques Rousseau (      century      ).....

.....

.....

(7) The Battle of Sadowa (Königgrätz) (      century      ).....

.....

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[TURN OVER

(8) The Sarajevo Assassinations (      century      ).....

.....  
.....  
.....

(9) The Treaty of Tordesillas (      century      ).....

.....  
.....

(10) The Council of Trent (      century      ).....

.....  
.....