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LEAVING CERTIFICATE EXAMINATION, 1905.

EXAMINATION PAPERS.

ENGLISH.

LOWER GRADE.

Thursday, 22nd June.—10 A.M. to 12.30 P.M.

Every Candidate should answer *nine* questions (AND NO MORE), namely, Questions 1, 2, 3, and 4, and *one* other question in Section I., *two* in Section II., and *two* in Section III.

Before attempting to answer any question, candidates should read it carefully through. This caution is particularly important in the case of Question 3.

VALUE.

SECTION I.

10. 1. Write out, and punctuate, the passage for dictation.
15. 2. Write an essay, of about two pages, on one of the following subjects :—
- (a.) An imaginary letter from an American boy or girl, describing a first visit to Scotland.
- (b.) The adventures of an umbrella.
15. 3. Express, in your own language, the sense of the following passage :—
- “The *Sailor* sighs, as sinks his native shore,
As all its *lessening* turrets bluely fade;
He climbs the mast to feast his eye once more,
And busy Fancy fondly lends her aid.
- Ah now, each dear domestic scene he knew,
Recalled and cherished in a foreign clime,
Charms with the magic of a *moonlight* view,
Its colours mellowed, not impaired, by time.
- True as the needle, *homeward* points his heart,
Through all the horrors of the stormy main;
This the last wish with which its *warmth* could part,
To meet the smile of her he loves again.”

10. 4. Analyse the second stanza of the above passage, from "Ah" to "time."
- Write brief notes on the words italicised in the above passage, showing how each of them illustrates the way in which English words are built up, and giving in each case another word similarly formed.
10. 5. Write five or more sentences, to illustrate important distinctions of usage between :—
- (i.) "Shall" and "will."
 - (ii.) "Middle" and "centre."
 - (iii.) "Few" and "a few."
 - (iv.) "Verbal" and "oral."
 - (v.) "Last" and "latest."
10. 6. Show, with examples, how the English language tends to become simpler in structure by (i) the disuse of old inflections, (ii) the substitution of a familiar form for an unfamiliar one, (iii) the use of an additional word in place of an inflection.
10. 7. Rewrite each of the following sentences in correct and unambiguous form. Point out the nature of the faults, drawing special attention to such words or clauses as cannot be analysed or can be analysed in more ways than one :—
- (a.) Having surveyed the antiquities of Rome, it must be confessed that our admiration of them does not so much arise out of their greatness as uncommonness.
 - (b.) A history by a Mr. Hume, or a poem by a Mr. Pope, would be examined with different eyes than had they borne any less famous name.
 - (c.) In England it is almost impossible to procure a pair of boots without squeaking out of London.
 - (d.) Domitian did not fail to persecute the Christians because he had no inclination to do so, but because there were none in Rome.
 - (e.) He said to his patient that, if he did not get better, he thought he had better come back to say how he was.
10. 8. Give an account, with quotation, of any celebrated English ballad or short narrative poem.

SECTION II.

10. 9. Give some account of *one* of the following :—The conquest of England by the English; the history of the Papal claims in England; the Tudor monarchy; the beginnings of English colonisation; the rise of Party government; the Union of England and Scotland; the progress of democracy in the nineteenth century.

VALUE.

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10. 10. Describe the part played in history by *your* of the following:—Dunstan, Earl Godwin, Anselm, William the Lion, Stephen Langton, Simon de Montfort, Piers Gaveston, John Ball, Owen Glendower, Warwick the Kingmaker, Lambert Simnel, Sir Thomas More, Thomas Cromwell, Cranmer, Darnley, Whitgift, Villiers (first Duke of Buckingham), Fairfax, Montrose, Blake, Titus Oates, Harley (Earl of Oxford), Captain Porteous, Sir John Cope, John Wilkes, Canning, Daniel O'Connell, General Havelock, Parnell.
10. 11. Give a full military account, with sketch-plan, of any *one* important battle fought on British soil.

SECTION III.

10. 12. Describe *one* of the following:—The Colonial Empire of the French; the rivers of South America; the north-east passage from Great Britain to America; the principal cities of Australia; the geographical and political bearings of Russia's need of warm-water sea-ports; the railway systems of Scotland.
10. 13. Give some account of the various races that inhabit Africa, and indicate their geographical distribution by a sketch-map. (Show the equator and the tropics on your map.)
10. 14. Name *five* places of historic interest in the county in which your school is situated, indicate their position, and mention *one* event associated with each of them.
10. 15. Say where any *ten* of the following places are situated, and mention anything for which each of the ten is noted:—Berbera, Calgary, Ceuta, Chemulpo, Curragh of Kildare, Dalgetty, Drogheda, El Gran Chaco, Galveston, Grasmere, Key West, Lodz, Queenstown, Monastir, Philiphaugh, Potosi, Rohilcund, Saigon, St. Albans, Spanish Town, Vigo, Yale.

ENGLISH.

LOWER GRADE.

Thursday, 22nd June.—10.45 A.M.

Passage for Dictation.

“A man may read a sermon, the best and most passionate that ever man preached, if he shall but enter into the sepulchres of kings. In the same palace where the Spanish princes live in greatness and power, and decree war or peace, they have wisely placed a cemetery where their ashes and their glory shall sleep till time shall be no more; and where our kings have been crowned, their ancestors lay interred, and they must walk over their grandsire's head to take his crown. There is enough to cool the flames of lust, to abate the heights of pride, to appease the itch of covetous desires, to sully and dash out the dissembling colours of an artificial and imaginary beauty.”

ENGLISH.

HIGHER GRADE AND FIRST PAPER FOR HONOURS.

Thursday, 22nd June.—10 A.M. to 1 P.M.

Every Candidate should answer *nine* questions (AND NO MORE).

Higher Grade Candidates must take Questions 1 and 2, *three* other questions from Section I., *two* questions from Section II., and *two* from Section III.

Honours Candidates should take *seven* questions from Section I., and the remaining two from any Section or Sections.

Before attempting to answer any question, candidates should read it carefully through. This caution is particularly important in the case of Question 2.

SECTION I.

15. 1. Write an essay, of about two pages, on one of the following subjects:—
- (a.) "The child is father of the man." How far is this borne out by what you know of the childhood of any great man (*e.g.*, Scott or Nelson) ?
- (b.) The Sea.
- 15 2. Express, in your own language, the main ideas of the following passage:—
- "How happy is he born and taught
That serveth not another's will ;
Whose armour is his honest thought,
And simple truth his utmost skill ;
Whose passions not his masters are ;
Whose soul is still prepared for death,
Untied unto the world by care
Of public fame or private breath ;
Who God doth late and early pray
More of His grace than gifts to lend,
And entertains the harmless day
With a religious book or friend.
This man is freed from servile bands
Of hope to rise or fear to fall :
Lord of himself, though not of lands,
And, having nothing, yet hath all."
- Write a brief criticism of the ideal of life and character which these verses set forth.
10. 3. "There are three main divisions of English words—Saxon, Romance, and Latin." Show, by a brief sketch of the history of English, how this came about, and give examples of words belonging to each division.

10. 4. Give some account of the metres of *four* of the following poems :—
The Prologue to the Canterbury Tales, The Faerie Queene, II
Penseroso, Gray's Elegy, Cowper's Task, Tennyson's In Memoriam
Longfellow's Evangeline.
10. 5. Discuss, with examples, the use and abuse of quotation.
10. 6. Expand the following metaphors into similes so as to bring out their full meaning :—
- (a.) Afghanistan is the Switzerland of Asia.
- (b.) He was the apple of his father's eye.
- (c.) Full many a flower is born to blush unseen.
- (d.) For in that sleep of death what dreams may come ?
- (e.) The great sun begins his state
 Robed in flames and amber light,
 The clouds in thousand liveries dight.
10. 7. Rewrite each of the following sentences in correct and unambiguous form. Point out the nature of the faults, drawing special attention to such words or clauses as cannot be analysed or can be analysed in more ways than one.
- (a.) Having surveyed the antiquities of Rome, it must be confessed that our admiration of them does not so much arise out of their greatness as uncommonness.
- (b.) A history by a Mr. Hume, or a poem by a Mr. Pope, would be examined with different eyes than had they borne any less famous name.
- (c.) In England it is almost impossible to procure a pair of boots without squeaking out of London.
- (d.) Domitian did not fail to persecute the Christians, because he had no inclination to do so, but because there were none in Rome.
- (e.) He said to his patient that, if he did not feel better, he thought he had better come back to say how he was.
10. 8. Give an account of any famous passage dealing, in prose or verse, with *one* of the following themes :—The death of a child ; a quarrel of friends ; the blessings of sleep ; domestic happiness.
10. 9. Show, with examples, how great a variety of human character is portrayed *either* by Shakespeare *or* by Scott.

SECTION II.

10. 10. Give some account of *one* of the following :—The conquest of England by the English ; the history of the Papal claims in England ; the Tudor monarchy ; the beginnings of English colonisation ; the rise of Party government ; the Union of England and Scotland ; the progress of democracy in the nineteenth century.

10. 11. Describe the part played in history by *four* of the following:—Dunstan, Earl Godwin, Anselm, William the Lion, Stephen Langton, Simon de Montfort, Piers Gaveston, John Ball, Owen Glendower, Warwick the Kingmaker, Lambert Simnel, Sir Thomas More, Thomas Cromwell, Cranmer, Darnley, Whitgift, Villiers (first Duke of Buckingham), Fairfax, Montrose, Blake, Titus Oates, Harley (Earl of Oxford), Captain Porteous, Sir John Cope, John Wilkes, Canning, Daniel O'Connell, General Havelock, Parnell.
10. 12. Give a full military account, with sketch-plan, of any *one* important battle fought on British soil.

SECTION III.

10. 13. Describe *one* of the following:—The Colonial Empire of the French, the rivers of South America; the north-east passage from Great Britain to America; the principal cities of Australia; the geographical and political bearings of Russia's need of warm-water sea-ports; the railway systems of Scotland.
10. 14. Give some account of the various races that inhabit Africa, and indicate their geographical distribution by a sketch-map. (Show the equator and the tropics on your map.)
10. 15. Name *five* places of historic interest in the county in which your school is situated, indicate their position, and mention *one* event associated with each of them.
10. 16. Say where any *ten* of the following places are situated, and mention anything for which each of the ten is noted:—Berbera, Calgary, Ceuta, Chemulpo, Curragh of Kildare, Dalgetty, Drogheda, El Gran Chaco, Galveston, Grasmere, Key West, Lodz, Queenstown, Monastir, Philiphaugh, Potosi, Rohilcund, Saigon, St. Albans, Spanish Town, Vigo, Yale.

ENGLISH.

HONOURS.—SECOND PAPER.

Wednesday, 28th June.—10 A.M. to 1 P.M.

About SIX questions should be answered. At least FOUR of these must be taken from Section I.

SECTION I.

16. 1. Mention some of the chief differences between English life and society as described by Chaucer and the life and society of to-day.
16. 2. Tell what you know of Wiclif's life and works.
16. 3. Give a brief account of any famous English work which describes an imaginary commonwealth.
16. 4. What great advances in the English drama were due to Marlowe?
16. 5. "Spenser's *Faerie Queene* is a double allegory." Explain and illustrate this statement.

16. 6. A hero of tragedy, it has been said, must be neither wholly good nor wholly bad. Discuss this statement as it applies to Shakespeare's tragic heroes.
16. 7. Write a brief history of the Sonnet in English literature down to the time of Milton.
16. 8. Give a descriptive account of *Lycidas*, with illustrative quotations.
16. 9. What is the importance of the *Tatler* and the *Spectator* in the history of English literature?
16. 10. Describe one of the following works:—*Essay on Man*, *The Seasons*, *Rasselas*, *The Citizen of the World*.
16. 11. What did Burns owe to earlier poets?
16. 12. What is meant by the Revival of Romance?
16. 13. Give some account of the poetic partnership of Wordsworth and Coleridge.
16. 14. Show how Scott the novelist was indebted to Scott the lawyer and antiquary.
16. 15. Describe one of the following works:—*Maud*, *Men and Women*, *The Rubaiyat of Omar Khayyam*, *Sesame and Lilies*

SECTION II.

Optional Questions.

16. 16. Translate:—
 Ðā Drihten Hælend Crīst *cwæð* tō Andrēa his apostole, 'Gang on Marmadonia ceastre, and alaed þanon Mathēum þinne brōþor of þæm carcerne, for þon þe nū gīt þrý dagas tō *lāfe* syndon, þæt hīe hine willað *acwellan*.' Sē hāliga Andrēas him andswarode, and hē cwæð, 'Min Drihten Hælend Crīst, hū *mæg* ic hit on þrim dagum gefaran? Ac mā wēn is þæt þū onsende þinne engel sē hū *mæg* hrædlīcor gefaran, for þon, min Drihten, þū *wāst* þæt ic eam flæselic man, and ic hit ne mæg hrædlīce gefaran, for þon þe, min Drihten, sē sīðfæt ist þider tō lang, and ic þe ne weg ne can.' Drihten him tō cwæð, "Andrēas, geher mē, for þon þe ic þe *geworhte*, and ic þinne sīð *gestapelode* and getrymede. Gang nū tō þæs saes waroðe mid þinum discipulum, and þū þær gemētest scip on þam waroðe; and astig on þæt mid þinum discipulum.' And mid þý þe hē þis cwæð, Drihten Hælend ðā gīt wæs sprecende and cwæð, 'Sib mid þe and mid eallum þinum discipulum.' And hē *ástig* on heofonas.
16. 17. Parse fully the words in italics in the above passage.
16. 18. Give some account of the influence on the English language of the following:—
 (i) Ecclesiastical Latin.
 (ii) The surviving Celtic population.
 (iii) The Danish invasions.
16. 19. Trace the growth of standard English.

LATIN.

LOWER GRADE.

Monday, 26th June.—10 A.M. to 12.30 P.M.

Candidates should in all cases attempt Question ..

30. 1. For Prose Composition :—

That he might not seem to regard his own safety more than that of his soldiers, he shared in all the perils that they underwent. One day he received a very dangerous wound, having his neck pierced through with a javelin, but he still continued the siege, and at length took Thebes a second time. When he entered the city, he so severely threatened the inhabitants that they were in the utmost consternation, and expected the most dreadful effects of his resentment. Yet when he had put to death thirteen of them, and banished some others, he pardoned all the rest. Thus was Thebes twice taken within ten years after it had been rebuilt.

20. 2. Translate into English :—

(a) Consul Romanus per eosdem dies Thessaliam cum exercitu petens iter expeditum primo per Epirum habuit ; deinde postquam in Athamaniam est transgressus, cum ingenti difficultate parvis itineribus aegre Gomphos pervenit : cui si vexatis hominibus equisque tironem exercitum ducenti acie instructa et loco suo et tempore obstitisset rex, ne Romani quidem abnuunt magna sua cum clade fuisse pugnatuos. postquam Gomphos sine certamine ventum est, praeter gaudium periculosi saltus superati contemptus quoque hostium adeo ignorantium opportunitates suas accessit. sacrificio rite perfecto consul et frumento dato militibus paucos ad requiem iumentorum hominumque moratus dies, cum audiret vagari Macedonas effusus per Thessaliam vastarique sociorum agros, satis iam refectum militem ad Larisam ducit.

True Kingship.

15.

(b)

Regem non faciunt opes,
non vestis Tyriae color,
non auro nitidae fores :
rex est qui posuit metus
et diri mala pectoris,
quem non ambitio impotens
et numquam stabilis favor
vulgi praecipitis movet ;
qui tuto positus loco
infra se videt omnia
occurritque suo libens
fato nec queritur mori.

35.

3.

(a) In the following lines of verse mark the quantity of each syllable and divide the feet. Name the metres in which the lines are written.

nimirum hic ego sum ; nam tuta et parvula laudo.
quod petis id sane est in visum acidumque duobus.
Bacche, racemiferos hedera redimite capillos,
si domus illa tua est, dirige vatis opus.

(b) Give (1) the meaning, (2) the gender, (3) the ablative singular, (4) the genitive plural of the following words:—*civis, munus, gradus, paries*; and give the principal parts of *augeo, audeo, veto, sterno, ordior*.

(c) Write down the comparative and superlative of *male, graviter, nequam, niger, utilis*; and give the adverbs formed from the adjectives *acer, fortis, timidus, multus*.

(d) What is the exact meaning of *uter, uterque—alias, aliter—quisque, quivis—ultra, ultra—non, haul*? Write and translate short Latin sentences to illustrate the force of these words.

4. Translate into Latin:—

(a) My father told me not to forget my promise.

(b) Then the king asked me when I intended to return home.

(c) The general promised to reward all those who would enlist before the 13th of April.

(d) Caesar sent Labienus to bring relief to the besieged town.

5. Give a short account of any two of the following battles, mentioning (a) when the battle was fought, (b) the names of the commanders on each side:—*Trasimenus, Zama, Aquæ Sextiæ, Munda, Actium*.

LATIN.

HIGHER GRADE.

Monday, 26th June.—10 A.M. to 1 P.M.

Candidates will not be allowed to pass unless they reach the necessary standard both in Prose Composition and in Translation.

30. 1. For Latin Prose:—

Brutus was still, as formerly, desirous to come with all speed to the decision of a battle; that so he might either restore his country to her liberty, or else deliver from their misery all those men who were harassed with the expenses, troubles, and dangers of the war. And finding also that his cavalry in several skirmishes had the better, he was the more encouraged and resolved: and some of the soldiers having deserted to the enemy, and others beginning to accuse and suspect one another, many of Cassius' friends in the council came over to the opinion of Brutus. But there was one of Brutus' party, named Atellius, who opposed his resolution, advising rather that they should tarry till the next winter. And when Brutus asked him in how much better a condition he hoped to be a year after, his answer was, "If I gain nothing else, yet I shall live so much the longer." Cassius was much displeased at this answer, as were all the officers present. It was therefore resolved to give battle the next day.

25. 2. Translate into English:—

[*The disadvantages of Anger.*]

(a) Quo alio Fabius adfectas imperii vires recreavit, quam quod cunctari et morari scivit—quae omnia irati nesciunt? perierat imperium, quod tunc in extremotabat, si Fabius tantum ausus esset quantum ira suadebat: habuit in consilio fortunam publicam, dolorem ultionemque seposuit in unam utilitatem occasionesque intentus, iram ante vicit quam Hannibalem. quid Scipio? non, relicto Hannibale et Punico exercitu omnibusque quibus irascendum erat, bellum in Africam transtulit, tam lentus, ut opinionem luxuriae segnitiaeque malignis daret? quid alter Scipio? non circa Numantiam multum diuque sedit, et hunc sum publicumque dolorem aequo animo tulit, diutius Numantiam quam Carthaginem vinci? dum circumvallat hostem et includit, eo compulit ut ferro ipsi suo caderent. non est itaque utilis, ne in proeliis quidem aut bellis, ira.

- 15.

(b) [*Ovid compares his voyage to Scythia with Jason's.*]

Aspice, in has partes quod venerit Aesone natus,
quam laudem a sera posteritate ferat.
at labor illius nostro leviorque minorque est,
si modo non verum nomina magna premunt.
ille est in Pontum Pelia mittente profectus,
qui vix Thessaliae fine tremendus erat.
Caesaris ira mihi nocuit, quem solis ab ortu
solis ad occasus utraque terra tremit.
ille habuit comites primos telluris Achivae;
at nostram cuncti destituere fugam.
nos fragili ligno vastum sulcavimus aequor;
quae tulit Aesoniden, sacra carina fuit.
illum tutata est cum Pallade regia Iuno;
defendere meum numina nulla caput.

- 11.

3. (a) Write a short Latin sentence (translating it) to illustrate the force of each of the following:—*cum* with the indicative, *cum* with the subjunctive; *qui* with the subjunctive; *quominus*; *quin*.

(b) Explain the following expressions, illustrating your explanation by Latin examples:—*indirect command, cognate accusative, objective genitive, constructio ad sensum, predicative dative*

(c) Scan the following lines, marking the quantity of every syllable, and dividing the feet. Give the name of the metre in each case:—

quae placeant, positus omnibus, ipse leges.
quod regum tumidas contuderit minas.
imperio regit unus aequo.

- 12.

4. Translate into Latin:—

(a) The philosopher boasted that there was no book either in Greek or in Latin which he had not read.

(b) I told my friend that, whether he obeyed the order or disobeyed it, he would be blamed.

- (c) The Spaniards were so far from acknowledging defeat that they even claimed the victory.
- (d) Antonius thought that it would be impossible for the enemy to advance without falling into the trap.

7

5. Answer any *one* of the following :—

- (a) Give a concise account of the development of the *ordo equester* as a political and social force, down to 60 B C.
- (b) Sketch briefly the growth of the praetorship, bringing your account down to the close of the Republic.
- (c) Describe in outline the chief events in Roman history from the battle of Philippi to the battle of Actium.
- (d) Give a short sketch of the career of any *one* of the following :—*The Elder Scipio, Sertorius, Tiberius Gracchus, Caius Marius, Cato Uticensis, Sejanus.*
- (e) Explain the following expressions :—*lex curiata de imperio ; interrex comitiis habendis ; legatus Caesaris pro praetore ; leges duodecim tabularum ; questio perpetua.*

LATIN.

HONOURS.—FIRST PAPER.

Monday, 26th June.—10 A.M. to 1 P.M.

70. 1. For Latin Prose :—

The tendency of history is to fall into wholesome moral lines, whether they be accurate or not, and to interfere with harmless illusions may cause greater errors than it aspires to cure. Crowned offenders are arraigned at the tribunal of history for the crimes which they are alleged to have committed. It may be sometimes shown that the crimes were not crimes at all, that the sufferers had deserved their fate, that the severities were useful and essential for some great and valuable purpose. But the reader sees in the apology for acts which he had regarded as tyrannical a defence of tyranny itself. Preoccupied with the received interpretation, he finds deeds excused which he had learnt to execrate; and in learning something which, even if true, is of no real moment to him, he suffers in the maiming of his perceptions of the difference between right and wrong. The white-washing of the villains of tradition is, therefore, justly regarded as waste of labour. If successful, it is of imperfect value; if unsuccessful, it is a misuse of industry which deserves to be censured. Time is too precious to be squandered over paradoxes. The dead are gone; the censure of mankind has written their epitaphs, and so they may be left. Their true award will be decided elsewhere.

30. 2 For Latin Verse Composition :—

(a) Translate into Hexameters :—

[Candidates who attempt Elegiacs also may omit the last four lines of this passage.]

Soon as Aurora heaved her Orient head
Above the waves, that blush'd with early red
The immortal arms the goddess-mother bears
Swift to her son : her son she finds in tears
Stretch'd o'er Patroclus' corse ; while all the rest
Their sovereign's sorrows in their own express'd.
A ray divine her heavenly presence shed,
And thus, his hand soft touching, Thetis said :

“ Suppress, my son, this rage of grief, and know
It was not man, but heaven, that gave the blow ;
Behold what arms by Vulcan are bestow'd,
Arms worthy thee, or fit to grace a god.”

(b) Translate into Elegiacs :—

I'll sing no more, nor will I longe. write
Of that sweet lady or that gallant knight ;
I'll sing no more of frosts, snows, dewes, and showers ;
No more of groves, meads, springs, and wreaths of flowers ;
I'll write no more, nor will I tell or sing
Of Cupid and his witty cozening ;
I'll sing no more of death, or shall the grave
No more my dirges and my trentals have.

OR, as an alternative to verse composition,

Write a Latin Essay or Dialogue on—

The Differences between Asiatic and European Civilization ;

OR on

A Contrast between Rome in the Time of the Punic Wars
and Rome under the Early Empire.

LATIN.

HONOURS.—SECOND PAPER.

Wednesday, 28th June.—2 to 5 P.M.

1. Translate into English :—

20.

(a) MENAECHEMUS. MESSENIO.

MEN. Voluptas nullast navitis, Messenio,
maior meo animo quam quando ex alto procul
terram conspiciunt.

MES. Maior, non dicam dolo,
si adveniens terram videas, quae fuerit tua,
sed quaeso, quamobrem nunc Epidamnum venimus ?
an quasi mare omnes circumimus insulas ?

VALUE.

- MEN. Fratrem quaesitum geminum germanum meum.
 MES. Nam quid modi futurum est illum quaerere ?
 hic annus sextust postquam ei rei operam damus.
 Histros, Hispanos, Massilienses, Hilurios,
 mare superum omne Graeciamque exoticam
 orasque Italicas omnes, qua adgreditur mare,
 sumus circumvecti. si acum, credo, quaereres,
 acum invenisses, si appareret, iam diu.
 hominem inter vivos quaeritamus mortuum :
 nam invenissemus iam diu, si viveret.
 MEN. Ergo istuc quaero certum qui faciat mihi,
 qui sese dieat scire eum esse emortuum :
 operam praeterea numquam sumam quaerere.
 verum aliter vivus numquam desistam exsequi :
 ego illum scio quam carus sit cordi meo.
 MES. In scirpo nodum quaeris. quin nos hinc domum
 redimus, nisi si historiam scripturi sumus ?

20. (b.) Etenim, patres, enscripti, eum in spem libertatis sexennio post simus ingressi diutiusque servitutem perpassi quam captivi servi frugi et diligentes solent, quas vigiliis, quas sollicitudines, quos labores liberandi populi Romani causa recusare debemus ? equidem, patres enscripti, quamquam hoc honore usi togati solent esse cum est in sagis civitas, statui tamen a vobis esterisque civibus in tanta atrocitate temporis tantaque perturbatione reipublicae non differre vestitu. non enim ita gerimus nos hoc bello consulares ut aequo animo populus Romanus visurus sit nostri honoris insignia, cum partim e nobis ita timidi sint ut omnem populi Romani benefieiorum memoriam abiecerint, partim ita a republica aversi ut se hosti favere prae se ferant, legatos nostros ab Antonio despectos et irrisos facile patiantur, legatum Antonii sublevatum velint. hunc enim reditu ad Antonium prohiberi negabant oportere et in eodem exeipiendo sententiam meam corrigebant. quibus geram morem. redeat ad imperatorem suum Varius, sed ea lege ne unquam Romam revertatur. ceteris autem, si errorem suum deposuerint et eum republica in gratiam redierint, veniam et impunitatem dandam puto.
20. (c.) Caesar ut Emathia satiatus elade recessit, cetera curarum proiecit pondera, soli intentus genero ; cuius vestigia frustra terris sparsa legens fama duce tendit in undas Threiciasque legit fauces et amore notatum aequor et Heroas lacrimoso litore turres Sigeasque petit famae mirator harenas et Simoentis aquas et Graio nobile busto Rhoetion et multum debentes vatibus umbras. circumit exustae nomen memorabile Troiae magnaue Phoebei quaerit vestigia muri. iam silvae steriles et putres robore trunci Assaraci pressore domos et templa deorum iam lassa radice tenent ac tota teguntur Pergama dumetis ; etiam periire ruinae. aspicit Hesiones scopulos silvasque latentes Anehisae thalamos, quo iudex sederit antro

unde puer raptus caelo, quo vertice Nais
luxerit Oenone; nullum est sine nomine saxum
inscius in sicco serpentem pulvere rivum
transierat, qui Xanthus erat; securus in alto
gramine ponebat gressus; Phryx incolae manes
Hectoreos calcare vetat; discussa iacebant
saxa nec ullius faciem servantia sacri;
"Herceas" monstrator ait "non respicis aras"

16

2. Translate the following, with short notes on the construction of the words in italics:—

- (a) *id* eos ut prohiberet, quod *eius* sine bello posset, praetori mandatum est.
- (b) (*vada*) Faunigenae regnata antiquitus *Arno*.
- (c) insontem infando iudicio, quia bella *vetabat*, demisere neci.
(What would *vetaret* have meant?)
- (d) Tum e seditionis unum vinciri iubet magis *usurpandi iuris* quam quia unius culpa *foret*.
- (e) nec tacui demens et me, fors si qua *tulisset*, promisi ultorem.
- (f) iustitia est obtemperatio *scriptis legibus*.
- (g) tu quoque non melius, quam sunt mea tempora, carmen, interdicta mihi, consule, Roma, *boni*.

24.

3. Answer any two of the following:—

- (a) Give some account of the Treasury or Financial System of Rome. What were its chief receipts and expenses? What changes were introduced under the Empire?
- (b) What were the causes that led to the "Social War" of 91-88 B.C.? Sketch the history of the war, and indicate the terms of settlement.
- (c) Give some account of the nature and aims of the compact known as the First Triumvirate.
- (d) Describe briefly the reign and character of any one of the following emperors:—*Tiberius, Claudius, Nero, Domitian*.
- (e) Mention and characterize as many as you can of the men of letters who were friends of Virgil or Horace.
- (f) Describe either (1) the metres used by Plautus and Terence, or (2) the use made by Horace of the metres of Sappho and Alcaeus.
- (g) Give an account of any one of the following works, indicating the author's leading ideas in it, his sources and his method of treatment:—The *Second Philippic*, the *Georgics*, the *Fasti*, the *Pharsalia* of Lucan, the *Agricola* of Tacitus.

GREEK.

LOWER GRADE.

Friday, 23rd June.—2 to 4.30 P.M.

40. I. Translate:—

Another Version of the Persian Wars.

Οὐκ δὲ ταῦτα λέγουσιν οἱ ἐν πολέμῳ ἠττηθέντες τοῖς νικῶσιν· ἐγὼ γοῦν ἀνδρὸς ἤκουσα Μηδῶν λέγοντος ὅτι οὐδὲν ὁμολογοῦσιν οἱ Πέρσαι τῶν παρὰ τοῖς Ἕλλησι λεγομένων, ἀλλὰ Δαρεῖον μὲν φασὶν ἐπὶ Νάξον καὶ Ἐρέτριαν πέμψαι τοὺς περὶ Δαῖτιν καὶ Ἀρταφέρνην, κἀκείνους ἐλόντας τὰς πόλεις ἀφικέσθαι παρὰ βασιλέα, ὁρμούντων δὲ αὐτῶν περὶ τὴν Εἰβόριαν ὀλίγας ναῦς ἀποσκευασθῆναι πρὸς τὴν Ἀττικὴν, οὐ πλείους τῶν εἰκοσι, καὶ γενέσθαι τινὰ μάχην τοῖς ναύταις πρὸς τοὺς αὐτόθεν ἐκ τοῦ τόπου. μετὰ δὲ ταῦτα Ξέρξην ἐπὶ τὴν Ἑλλάδα στρατεύσαντα Λακεδαιμονίους μὲν νικῆσαι περὶ Θερμοπύλας καὶ τὴν βασιλέα αὐτῶν ἀποκτεῖναι Δεωνίδην, τὴν δὲ τῶν Ἀθηναίων πόλιν ἐλόντα κατασκάψαι, καὶ δοσι μὴ διέφυγον δουλώσασθαι. ταῦτα δὲ ποιήσαντα καὶ φόρου ἐπιθέντα τοῖς Ἕλλησιν εἰς τὴν Ἀσίαν ἀπελθεῖν. ὅτι μὲν οὖν ψευδῆ ταῦτά ἐστιν οὐκ ἄδηλον, ὅτι δὲ οὕτω λέγουσιν οἱ Πέρσαι οὐδὲν θαυμαστόν.

ὁρμεῖν = to lie at anchor. κατασκάπτειν = to raze to the ground.

24. II. Translate into Greek:—

- (1) I know that the king is dead.
- (2) He thought that we would go home.
- (3) I shall ask him why he said that.
- (4) Do not tell this to anyone.
- (5) I could not have done this if you had been there.
- (6) We ought to have gone away long ago.

10. III. (a) Give—

gen. sing. of γλῶττα, πατήρ, οὖς, βρίς, ναῦς, βοῦς.
 dat. plur. of μήτηρ, γυνή, ποῖς, κῶν, ἕδωρ, νῖός.
 gen. plur. fem. of τοσούδε, ὅστις, μέγας, τίς, εἰδώς, ἐλάττων.

Parse—

νῆες, ἐλάττους, ἰππία, βρίζ, γόνασι.

Compare—

λαμπρός, χαλεπός, αἰσχρός, καλός, πολὺς

10. (b) Parse, giving 1st sing. pres. ind. with active meaning:—

παραστῆναι, παρεστάναι, προσεροῦμαι. ἐμβλήκη, σιγή, δυνηθεῖν,
 ἀφήκας, εἰδόμεν, ταφήναι, ἦσθου, ἐλῆ, ἦκται.

Give—

eor. inf. with active meaning of ἀγγελλω, ὑπισχοῦμαι, ἐλαύνω,
 πλέω.

1st sing. perf. ind. act. of ἀποστέλλω, ἁμαρτάνω, γιγνώσκω, πίνω.

3rd sing. fut. ind. with active meaning of νομίζω, ἐφορά, ἐσθίω,
 φέρω

16. (c) Distinguish in meaning between *διὰ τούτου*, *διὰ τούτων* : *παρ' αὐτοῦ*, *παρ' αὐτόν*, *παρ' αὐτῶ* : *οὐδεὶς οὐκ ἔφη*, *οὐκ ἔφη οὐδεὶς*.

Translate, adding a note on the syntax:—

- (1) εἰδεις ἀνάτιος ὦν τοῦ φόνου.
- (2) βούλει σοι εἶπω τί δεῖ ποιεῖν;
- (3) εἰάν μὴ γράμματα μάθης, σοφὸς οὐκ ἔσει.
- (4) ὅπως μὴ θάττον πορεύσεσθε τοῦ δίοτοντος.
- (5) ὑπὸ τοῦ τυράνου ἀπέθανεν.
- (6) οὐκ ἔχω τί εἶν.

Give the Greek for—*Tell me, give me, bring it here, take it away, come with me, go with him, stay there.*

GREEK.

20.

HIGHER GRADE.

20. Friday, 23rd June.—2 to 5 P.M.

(Candidates will not be allowed to pass unless they reach the necessary standard both in Grammar and in Translation.)

I. Translate:—

The Praise of Order.

Ἔστι δ' οὐδὲν οὕτως, ὧ γύναι, οὔτ' εὐχρηστον οὔτε καλὸν ἀνθρώποις ὡς τάξις. καὶ γὰρ χορὸς ἐξ ἀνθρώπων συγκεκμηὸς ἔσταν' ἀλλ' ὅταν μὲν ποιῶσιν ὃ τι ἂν τύχη ἕκαστος, ταραχὴ τις φαίνεται καὶ θεῶσθα ἀτερπέις, ὅταν δὲ τεταγμένως ποιῶσι καὶ φθέγγωνται, ἅμα οἱ αὐτοὶ οὔτοι καὶ ἀξιοβίαιοι δοκοῦσιν εἶναι καὶ ἀξιάκουστοι. καὶ στρατιά γε, ἔφη, ὧ γύναι, ἀτακτος μὲν ὅσα παραχυδίστατον, καὶ τοῖς πολεμίοις εὐχειρωτότατον. τοῖς δὲ φίλοις ἀκλείστατον ὄραν καὶ ἀχρηστότατον—ὄνος ὁμοῦ, ὀπλίτης, σκευοφόρος, ψιλός, ἵππεύς, ἄμαξα—πῶς γὰρ ἂν πορευθεῖεν, εἰάν ἔχοντες οὕτως ἐπικωλύωσιν ἄλλήλους, ὃ μὲν βαδίζων τὸν τρέχοντα, ὃ δὲ τρέχων τὸν ἰστηκότα, ἢ δὲ ἄμαξα τὸν ἵππεῖα, ὃ δὲ ὄνος τὴν ἄμαξαν, ὃ δὲ σκευοφόρος τὸν ὀπλίτην; εἰ δὲ καὶ δεῖ μάχεσθαι, πῶς ἂν οὕτως ἔχοντες μαχέσωντο; οἷς γὰρ ἀνάγκη αὐτῶν τοὺς ἐπιόντας φέγειν, οὔτοι ἱκανοὶ εἰσι φεύγοντες καταπατήσασιν τοὺς ὄπλα ἔχοντας. τεταγμένη δὲ στρατιά κάλλιστον μὲν ἰδεῖν τοῖς φίλοις, δυσχερόστατον δὲ τοῖς πολεμίοις.

20.

II. Translate one of the following passages:—

- (a) *Odysseus makes himself known to the Swineherd and the Neatherd by his scar.*

20. Ἔγδον μὲν δὴ δδ' αἰτὸς ἐγώ, κακὰ πολλὰ μογήσας, ἤλυθον εἰκοσῶ ἔτει ἐς πατρίδα γαῖαν. γιγνώσκω δ' ὡς σφῶν ἐλλομοέοισιν ἰκάνα, οἰοῖσι δμῶν· τῶν δ' ἄλλων οὐ τεῖ ἀκουσα εἰδόμενον ἐμὲ αἰτίς ὑπότροπον οἰκαδ' ἰκίσθαι. σφῶν δ' ἵς ἔσεται περ, ἀληθείην καταλέξω.

εἰ χ' ὑπ' ἐμοίγε θεὸς δαμάσῃ μνηστῆρας ἀγανυῖς,
 ἀξίωμα ἀμφοτέροισ ἀλόχους, καὶ κτήματ' ὀπάσσου,
 οἰκία τ' ἐγγυῖ ἐμείοι τετυγμένα· καὶ μοι ἔπειτα
 Τηλεμάχου ἐτάρω τε κασιγνήτω τε ἔσθασον.
 εἰ δ', ἄγε δῆ, καὶ σῆμα ἀριφραδῆς ἄλλο τι δείξω,
 ὄφρα μ' ἐν γνότων πιστωθῆτόν τ' ἐνὶ θυμῷ,
 οὐλήν, τὴν ποτὲ με σὺς ἤλασε λευκῷ ὀδόντι,
 Παρηγόδι' ἔλθοντα σὺν νύσιν Αἰτολιόκοιο.

Scan the last four verses, noting any peculiarities of Homeric scansion.

(b) *Hecuba bids Farewell to Troy.*

20.

οἷ γὰρ τάλανα· τοῖτο δὴ τὸ λίσσιον
 καὶ τέρμα πάντων τῶν ἐμῶν ἤδη κακῶν·
 ἐξεῖμι πατρίδος, πόλις ὑφάπτεται πυρὶ,
 ἀλλ', ὦ γεραῖε πούς, ἐπίσπευσον μόλις,
 ὡς ἀσπασομαι τὴν ταλαίπωρον πόλιν.
 ὦ μεγάλα δὴ ποτ' ἀμπένυστ' ἐν βερβάρους
 Τροία, τὸ κλειῶν ὄνομι ἀφαίρησθι τάχα.
 πικρῶσι σ'. ἡμᾶς δ' ἐξάγουσ' ἠδὴ χθονός
 δούλας· ἴω θεοί, καὶ τί τοὺς θεοὺς καλῶ;
 καὶ πρὶν γὰρ οὐκ ἤκονσαν ἀνικαλούμενοι.
 φέρ' ἐς πυρὰν δράμομεν· ὡς κάλλιστά μοι
 σὺν τῆθε πατρίδι καθθανεῖν πυρουμένη.

Scan the first four verses, marking the cæsura in each.

25. III. For Greek Prose:—

"Speak!" said the king. "I fear me thou art come with ill tidings from the field; yet would we surely know of our dear son if he yet liveth." To which the herald made answer with many tears: "Sir, it were well that no man should look to be in all things blessed. Thy son is indeed fallen, and hath been most cruelly slain by the Moors; yet did he approve himself to all men a true and valiant knight." "It is well," said the king after a little time. "To men it is given to die but once, and whoso is slain in combat with the foes of God and this realm, he is to be accounted happiest. Nevertheless, I would fain have looked upon my dear son once again." Having thus spoken, the king went hastily to his chamber, and we saw him no more that day.

IV. (1) Give aor. inf. with active meaning of ἐφίημι, διέρχομαι, ἀναβιβάζω, ὑπασχοῦμαι.

1st sing. perf. ind. act. of ἀπαγορεύω, ἐξελαίνω, ζῶ, αἰρῶ.

3rd sing. fut. ind. of βοδίζω, καθορῶ, διαμάχομαι, ἀποθνήσκω.

Parse, giving 1st sing. pres. ind. act., πραβεῖς, ἐμπρήσαι, ἀνερρήθη, ἀπῆα, ἀλοῖσα.

10.

(2) Translate, adding a note on the Syntax:—

(a) ἤσθετο ἡμαρτηκῶς.

(b) σκεπτίον ὅπως ἀσφαλῶς ἄπιεν.

(c) πολλὰ καὶ δεινὰ ὑπὸ τούτων πεπονθα.

(d) οὐκ ἂν οἶμαί σε ταῦτ' εἰπέιν.

(e) δεῖξω σε αἴτιον ὄντα.

(3) Translate into Greek :—

- (a) If you break the laws, you will be punished.
- (b) Do not go away till I come back.
- (c) He asked whether my father had been put to death by the tyrant.
- (d) Let him tell the truth if he can.
- (e) I do not know whether he is alive or dead.

5.

(4) (a) Όταν φώς γίνηται, ἐπιθίσσονται οἱ πολέμοι. Put this into indirect speech dependent on (1) ἔφη, (2) εἶπε, (3) οἶεται.

(b) How many kinds of clauses can you mention in which both Greek and Latin use the subjunctive ?

GREEK.

HONOURS.—FIRST PAPER.

Friday, 23rd June.—2 to 5 P.M.

I. Translate.

20

(1)

Hector rebukes Polydamas.

Τὸν δ' ἄρ' ὑπόθρα ἰδὼν προσηΐη κορυσαΐολος Ἔκτωρ
 Πουλυδάμα, σὺ μὲν οἶκετ' ἔμοι φίλα ταῦτ' ἀγορεύεις,
 ὅς κέλευαι κατὰ ἄστυν ἀλθήμεναι αὐτὸς ἰόντας.
 ἢ οὔπω κεκέρησθε ἐελθάνοι ἄδοθι πύργων ;
 πρὶν μὲν γὰρ Ἠλιάμοιο πόλιν μέροπες ἄνθρωποι
 πάντες μῦθαικοτο πολύχρυσον, πολύχαλκον
 νῦν δὲ δὴ ἐξυπόλωλε δόμων κειμήλια καλά·
 πολλὰ οὐδὲ δή Φρυγίην καὶ Μηριόνην ἐρατεινὴν
 κτήματα περναμένῃ ἴκει, ἐπεὶ μέγας ἀδίνγατος Ζεὺς.
 νῦν δ' ὅτε πῆρ υἱοὶ ἔδωκε Κρόνου ποῖε ἀγκυλομήτεω
 κῆδος ἀρίστ' ἐπὶ ἰηυσί, θαλασση γ' ἔλσαι Ἀχαιοὺς,
 νῆπιε, μήκρετι ταῦτα νοήματι φαῖν' ἐνὶ δήμῳ.
 οὐ γὰρ τις Τρώων ἐπιπέσεται· οὐ γὰρ ἴασσι.
 ἀλλ' ἀγέθ', ὡς ἂν ἐγὼν εἶπω, πειθώμεθα πάντες.
 νῦν μὲν δούρτων ἔλασθε κατὰ στρατὸν ἐν τελέεσσιν,
 καὶ φυλικῆς μνήσασθε, καὶ ἐγγίγορθε ἕκαστος·
 Τρώων δ' ὅτε κτείτεσσιν ὑπερφιάλως ἀνιάζει,
 συλλέξας λαοῖσι δότω καταδημοβορήσασαι,
 τῶν τινα βέλτερόν ἐστιν ἐπαυρέμεν, ἤπειν Ἀχαιοῦς.

20.

(2) *The Persian Elders advise Atossa as to her Dream.*

ΧΟΡΟΣ.

οὐ σε βουλόμεσθα, μήτηρ, οὐτ' ἄγαν φοβεῖν λόγοις
 οὔτε θαρσύνειν. θεοὺς δὲ προστροπαῖς ἰκνούμενη,
 εἴ τι φλαῦρον εἶδες, αἰτοῦ τῶνδ' ἀποτροπήν λαβεῖν,
 τὰ δ' ἀγὰθ' ἐκτελῆ γενέσθαι σοὶ τε καὶ τέκνοις σέθεν,
 καὶ πόλει, φίλοις τε πᾶσιν· δευτέρον δὲ χρῆ χάρις
 γῆ τε καὶ φθίσιος χέασθαι· πνευμένως δ' αἰτοῦ τάδε,
 σὸν πῶσιν Δαρείου, ὄνπερ φῆς ἰδῆν κατ' εὐφρόνην,
 ἰσθλά σοι πέμπειν, τέκνω τε, γῆς ἕνεκεν ἰς φάος·

VALUE.

LEAVING CERTIFICATE EXAMINATION.

969

τάμπαιον δὲ τῶνδε γαίας κύτοχ' ἀμαυροῦσσι σκότῃ,
ταῦτα, θυμόματις ὧν σοὶ πειρημένος παρήνεσα.
εὐ δὲ πανταχῇ τελεῖν σοὶ τῶνδε κρινόμεν πέρι.

ΑΤΟΣΣΑ.

ἀλλὰ μὴν εἴνους γ' ὁ πρῶτος τῶνδ' ἐνπνίων κριτῆς
παῖδι καὶ δόμοις ἐμοῖσι τῆνδ' ἐκίρωσας φάτιν.
ἐκτελοῖτο δὴ τὰ χρηστά ταῦτα ὁ, ὡς ἐπίεσαι,
πάντα θήσομεν θεοῖσι, τοῖς τ' ἐνεμβε γῆς φίλοις,
εὐτ' ἂν εἰς οἴκους μώλωμεν.

60. II. For Greek Prose :

They choose soldiers out of every city those which put forth them selves willingly ; for they thrust no man forth into war against his will ; because they believe, if any man be fearful or fainthearted of nature, he will not only do no manful or hardy act himself, but also be occasion of cowardice to his fellows. But if any battle be made against their own country, then they put these cowards (so that they be strong-bodied) in ships among other boldhearted men, or else they dispose them upon the walls, from whence they may not fly. Thus, what for shame that their enemies be at hand, and what for because they be without hope of running away, they forget all fear. And many times extreme necessity turneth cowardice into prowess and manliness. Thus, as they make all the means and shifts that may be to keep themselves from the necessity of fighting, or that they may dispatch the battle by their hired soldiers, so, when there is no remedy but that they must needs fight themselves, then they do as courageously fall to it as before, whiles they might, they did wisely avoid and refuse it.

SIR THOMAS MORE.

GREEK.

HONOURS—SECOND PAPER.

Thursday, 29th June.—2 to 5 P.M.

25. I. Translate :—

(1) Κατὰ τοιαύτην δὴ διαφορὰν οὕτων τῶν Λακεδαιμονίων πρὸς τοὺς Ἀθηναίους, οἱ ἐν ταῖς Ἀθήναις αὐ βουλομένοι λῆσαι τὰς σπονδὰς εὐθὺς ἐπέκειντο. ἦσαν δὲ ἄλλοι τε καὶ Ἀλκιβιάδης ὁ Κλεινίου, ἀνὴρ ἡλικία μὲν ὧν ἔτι τότε νέος ὡς ἐν ἄλλῃ πύλει, ἀξιώματι δὲ προγόνων τιμώμενος, ὃ ἐβόκα μὲν καὶ ἄμενον εἶναι πρὸς τοὺς Ἀργεῖους μᾶλλον χρωσέει, οὐ μέντοι ἀλλὰ καὶ φρονήματι φιλονικῶν ἠρπαιότου, ὅτι Λακεδαιμόνιοι διὰ Νικίου καὶ Λάχης ἐπραξαν τὰς σπονδὰς, αὐτὸν κατὰ τὴν νεότητα ὑπερδόντες καὶ κατὰ τὴν παλαιὰν προξενίαν ποτὲ οὕσαν οὐ τιμωσαντες, ἦν τοῦ πάππου ἀπειπόντος, αὐτὸς τοὺς ἐκ τῆς νήσου αὐτῶν αἰχμαλώτους θεραπεύων, οἰονοεῖτο ἀνανέωσθαι. πανταχόθεν τε νομίζων ἐλασσύνεσθαι τὸ τε πρῶτον ἀντίπεν, οὐ βεβαίους φάσκων εἶναι Λακεδαιμονίους, ἀλλ' ἵνα Ἀργεῖους οφίστι σπεισάμενοι ἐξέλκοι καὶ αὐτὸς ἐπ' Ἀθηναίους μόνους ἴωσι, τούτου ἕνεκα σπένδουσθαι αὐτοὺς καὶ τότε, ἐπειδὴ ἡ διαφορὰ ἐγεγένητο, πέμπει εὐθὺς ἐς Ἄργος ἰδίᾳ, κελεύων ὡς ταχιστα ἐπὶ τὴν ἐνμαχίαν προκαλουμένους ἦκεν μετὰ Μαντινέων καὶ Ἠλείων, ὡς καιροῦ ὄντος καὶ αὐτὸς ἐνμαρτῶν τὸ μάλιστα.

25.

(2) Καὶ μὴν εἰ τις ὑμῶν ταῦτα μὲν οὕτως ἔχειν ἠγέται, οἷεται δὲ β'α καθέξειν αὐτὸν τὰ πράγματα, τῷ τὰ χωρία καὶ λιμένας καὶ τὰ τοιαῦτα προειληφέναι, οὐκ ὀρθῶς οἷεται. ὅταν μὲν γὰρ ὑπ' εὐνοίας τὰ πράγματα σπύγη καὶ πᾶσι ταῦτα συμφέρῃ τοῖς μετέχουσι τοῦ πολέμου, καὶ συμπονεῖν καὶ φέρειν τὰς συμφορὰς καὶ μένειν ἐθέλουσιν οἱ ἄνθρωποι· ὅταν δ' ἐκ πλεονεξίας καὶ πονηρίας τις, ὥσπερ οὗτος, ἰσχύσῃ, ἢ πρώτην πρόφασιν καὶ μικρὸν πταίσμα ἅπαντα ἀνεχάτισε καὶ διέλυσεν. οὐ γὰρ ἔστιν, οὐκ ἔστιν, ὡ ἄνδρες Ἀθηναῖοι, ἀδικοῦντα καὶ ἐπιπορούντα καὶ ψευδόμενον δύναμιν βεβαίαν κτήσασθαι, ἀλλὰ τὰ τοιαῦτα εἰς μὲν ἅπασ· καὶ βραχὺν χρόνον ἀντέχει, καὶ σφόδρα γε ἠνθήσεν ἐπὶ ταῖς ἐλπίσιν, ἂν τύχῃ, τῷ χρόνῳ δὲ φθοῖται καὶ περὶ αὐτὰ καταρρεῖ. ὥσπερ γὰρ οἰκίας, οἶμα, καὶ πλοῖον καὶ τῶν ἄλλων τῶν τοιούτων τὰ κάτωθεν ἰσχυρότατα εἶναι δεῖ, οὕτω καὶ τῶν πράξεων τὰς ἀρχὰς καὶ τὰς ὑποθέσεις ἀληθεῖς καὶ δικαίας εἶναι προσήκει. τοῦτο δὲ οὐκ ἐν νῦν ἐν τοῖς πεπραγμένοις Φιλίππῳ.

30. II. Translate, with notes on the syntax :—

- (1) ὄλοιο μήπω πρὶν μάθοιμι εἰ καὶ πάλιν γνώμη μετοίσις.
- (2) ὄρα μὴ παίζων ἔλεγεν.
- (3) τὸν Περικλέα ἐκάκιστον, ὅτι στρατηγὸς ἂν οὐκ ἐπεξάγοι.
- (4) ἀποκτενεῖς γάρ, εἰ με γῆς ἕξω βαλεῖς.
- (5) οὐδεὶς ἀντέπει διὰ τὸ μὴ ἀνισχύσθαι ἂν τὴν ἐκκλησίαν.
- (6) δυστάλαινα τὰρ ἐγὼ εἰ σοῦ στερηθῶ.

Give the meaning of the following words in Tragedy, with their equivalents in Attic prose :—

κρυεῖν, αἰών, προσενέπειν, ἀμπλακία, βροτός, μολεῖν, μοχθεῖν, πεδάρσιος, ναίειν, καθθανεῖν.

Distinguish in meaning the following pairs of phrases :—

πόλεμον ποιεῖν, πόλεμον ποιῆσθαι : κείρω τὰς τρίχας, κείρομαι τὰς τρίχας : ἀμύνει τοῖς Ἀθηναίοις, ἀμύνεσθαι τοῖς Ἀθηναίοις.

Distinguish according to their accent :—

νεῶν, νέων· νομός, νόμος· μητροτόκος, μητρόκτονος.

Give the derivation of the following English words, noting any difference of meaning between the Greek originals and the derivatives :—*acolyte*, *anchorite*, *clergy*, *hermit*, *panic*, *nomad*.

20. III. Answer any two of the following questions.

- (1) How does the dialect of Tragedy differ from Attic prose? How did it originate?
- (2) What part does the description of inanimate nature play in Greek poetry?
- (3) Give an account of any two of the following :—Alcæus, Draco, Lysander, Iseus, Theocritus, Lucian.
- (4) Why do we hear so little of agrarian troubles in Greek history as compared with Roman?
- (5) Write explanatory notes on the following terms :—

γραφὴ παρανόμων, θεσμοθέται, συνήγορος, εἰσαγγελία, τίμησις.

FRENCH.

LOWER GRADE.

Friday, 23rd June.—10 A.M. to 12.30 P.M.

To secure full marks, the whole of this Paper should be answered. The greatest possible attention should be paid to correctness of style both in French and in English.

25. 1. Translate into French :—

Miles's father was a soldier, and was fighting for his country on the other side of the world. That was why Miles lived alone with his mother in the house at the top of the hill. If he had been really a nice boy, he would have tried to make his mother happy, instead of grumbling* all day long. But Miles was not a nice boy. He was very selfish, and thought of no one but himself. "Why do we not live in the town where all the other boys live?" he grumbled* one day.

"Because I am always ill if I live in a town," said his mother. "The other boys' mothers are not ill," said Miles. "Are you not sorry, then, that your mother is not so strong as the other boys' mothers?" she asked him. "Yes, I am," he answered; "but it's a bother not being able to live in the town like the other boys."

* To grumble : se plaindre, murmurer.

2. Translate into idiomatic English :—

20. (a) Un jour, je fus, pauvre écolier, invité à dîner chez un riche. J'étais alors dans une misère affreuse. Je me trouvai là seul dans la salle à manger attendant l'heure du repas. Autour de moi brillait la vaisselle d'argent, mes yeux tremblaient comme si j'avais été ivre. Tout à coup une pensée traversa mon cerveau comme un éclair ; quelques-uns de ces objets pouvaient mettre fin à ma misère pour longtemps et personne ne me voyait. Un entraînement irrésistible m'attirait vers la corbeille où était entassée l'argenterie. J'y plongeai la main comme si quelqu'un m'y avait poussé. Mais au même moment il me sembla que ma main ne pouvait plus se mouvoir. J'étais incapable de rien lâcher et de rien prendre. La sueur de l'angoisse ruisselait sur mon front et je criai :—"Au secours ! au secours !" Je voulais appeler des gens pour m'arracher avec leur aide au péché. Un vieux serviteur accourut, et je lui racontai tout, en pleurant. Il me consola dans ma douleur indescriptible, et il s'employa dans la suite avec d'autres à ne plus me laisser souffrir de la misère.

(b) *Le Chien et le Chat.*

15. Un chien vendu par son maître
Brisa sa chaîne, et revint
Au logis qui le vit naître.
Jugez de ce qu'il devint,
Lorsque, pour prix de son zèle,
Il fut de cette maison
Reconduit par le bâton
Vers sa demeure nouvelle.

Un vieux chat, son compagnon,
 Voyant sa surprise extrême,
 En passant lui dit ce mot :
 "Tu croyais donc, pauvre sot,
 Que c'est pour nous qu'on nous aime !"

20. 3. Write from memory a French version of the passage read out.
20. 4. Translate into French :—
- (1) Tell me what you mean to do. I have to stay at home.
 - (2) Go through the wood, turn to the left, and then go straight on till you come to the mill. When you arrive there, ask the miller where the house is, and he will tell you.
 - (3) Go and stand in the corner; you have been very naughty, and you deserve to be punished.
 - (4) Don't give it to him; he is very careless, and he would lose it.
 - (5) What have you read this year? Something interesting, I hope.

FRENCH.

LOWER AND HIGHER GRADES.

Friday, 23rd June.—10.45 A.M.

This Paper must not be seen by any Candidate.

To be read out twice by the Supervising Officer (or a Teacher) at 10.45 A.M. The substance of this story is to be reproduced by the Candidates in French from memory. No notes may be made while it is being read.

Before commencing to read it, the Supervising Officer must write upon the blackboard the title of the story in French as follows: "Le Docteur Stukeley et Sir Isaac Newton," and also, "a boiled chicken = un poulet bouilli," and "a cover = un couvercle." He should also warn the Candidates that they are not to aim at reproducing the passage in all its details, and in the same words or order of words as the original. What is desired is that they should attempt to relate the story in French, in their own way. Great importance is attached to grammatical correctness, and full credit will be given for idiomatic phraseology. The last three lines of the story to be read out very distinctly and slowly.

LE DOCTEUR STUKELEY ET SIR ISAAC NEWTON.

Dr. Stukeley, an intimate friend of Sir Isaac Newton, having been asked to dine with him, came to his house a few minutes before the appointed time, and was told by the servant that Sir Isaac was in his study. No one was allowed to disturb him then; so the visitor sat down

in the dining-room to wait for him. After a time, dinner was brought in, a boiled chicken under a cover. Half-an-hour passed, and Newton did not appear. Dr. Stukeley feeling very hungry, at length removed the cover, ate the chicken, and putting the bones back into the dish, and replacing the cover, bid the servants dress another chicken for their master immediately. Before that was ready, the great man arrived. He apologised for his delay, and sat down to dinner. But, on taking up the cover, and seeing only the bones of the bird left, he turned to Dr. Stukeley with a smile: "See," said he, "what we studious people are: I thought I had not dined, but now I find I have."

FRENCH.

HIGHER GRADE.

Friday, 23rd June.—10 A.M. to 1 P.M.

To secure full marks, the whole of this paper should be answered. The greatest possible attention should be paid to correctness of style both in French and in English.

30. 1. Translate into French:—

"The usages of society are not worth much, sometimes," said Euphemia, "and you must remember that Pomona is a very different sort of person from an ordinary servant. She is much more like a member of the family—I can't exactly explain what kind of a member, but I understand it myself. She has very much improved since she has been married, and you know, yourself, how quiet and—and, nice she is, and as for the baby, it's just as good and pretty as any baby, and it may grow up to be better than any of us. Some of our presidents have sprung from lowly parents."

"But this one is a girl," I said.

"Well, then," replied Euphemia, "she may be a president's wife."

"Another thing," I remarked, "I don't believe Jonas and Pomona like your keeping their baby so much to yourself."

"Nonsense!" said Euphemia, "a girl in Pomona's position couldn't help being glad to have a lady take an interest in her baby, and help to bring it up. . . . Pomona! Is that you? You can bring it here, if you want to get at your cooking."

15. 2. Traduire en anglais:—

(a.) C'est du sein inépuisable de la terre que sort tout ce qu'il y a de plus précieux. Cette masse informe, vile et grossière, prend toutes les formes les plus diverses, et elle seule devient tour à tour tous les biens que nous lui demandons: cette boue se transforme en mille beaux objets qui charment les yeux; en une seule année, elle devient branches, boutons, feuilles, fleurs, fruits et semences, pour renouveler ses libéralités en faveur des hommes. Rien ne l'épuise: plus on déchire ses entrailles, plus elle est libérale. Après tant de siècles, pendant

lesquels tout est sorti d'elle, elle n'est point encore usée : elle ne ressent aucune vieillesse, ses entrailles sont encore pleines des mêmes trésors. Mille générations ont passé dans son sein : tout vieillit, excepté elle seule ; elle se rajeunit chaque année au printemps.

15. (b.) Une joie ici-bas est d'autant plus profonde
 Qu'elle est plus large : un jour, je le crois, doit venir
 Où nul ne pourra seul ni jouir ni souffrir,
 Où tout se mêlera, plaisirs, peines, pensées,
 Où chantera dans l'âme un éternel écho.
 Tous les hommes alors, de leurs mains enlacées,
 Formeront une chaîne immense où chaque anneau,
 Palpitant et vivant, ne pourra sans secousse
 Voir un autre frappé : la souffrance s'émeusse
 Lorsqu'elle unit les cœurs comme fait un aimant
 Et les soulève tous d'un même battement ;
 Ainsi que la pitié la douleur devient douce.
15. 3. Write from memory a French version of the passage read out.
15. 4. Ecrire à un ami une lettre, d'une page environ, pour lui annoncer que vous allez faire un voyage en France, avec votre famille. Vous lui expliquerez comment votre voyage est organisé et ce que vous comptez faire pour en jouir et en profiter.
10. 5. Translate into French :—
- (1) The child shall be punished for lying.
 - (2) I can't find it anywhere.
 - (3) It is more difficult to say that than to do it.
 - (4) She practises the piano several hours a day and she plays very well.

FRENCH.

HONOURS—FIRST PAPER.

Friday, 23rd June.—10 A.M. to 1 P.M.

[The utmost possible attention should be paid to correctness of style.]

35. 1. Translate into French :—
- Then, again, there are mistakes that men make in a life of study as in other things. They go on reading and never writing, until their acquisitions become out of all proportion to their power of using them. Or they never see the true point of things, and never form a considered opinion about them. Or their taste may be so fastidious, or their love of minutiae so great, that no considerable work can ever be executed on the scale or with the perfection which they propose. Most of us who have arrived at middle life have had many dreams in the days of our

youth, of the books which we would read, of the languages which we would learn, of the studies which we would pursue. Such dreams are always being renewed in the present generation, as in the last; but, perhaps, they are rarely fulfilled. And if there is any one here present who entertains aspirations of this sort, I would not discourage him, but merely remind him that more valuable and more difficult of attainment far than this many-sided cultivation is the force of character which carries any single work to an end.

40. 2. Composition française :—

Either,

Expliquer et développer ces vers de La Fontaine :

“Patience et longueur de temps
Font plus que force ni que rage.”

Or,

Quelles sont les différences essentielles entre la tragédie française et le drame anglais, au point de vue du sujet, de l'action et des caractères? Comparer, à ce propos, deux pièces caractéristiques, comme, *par exemple*, Le Cid de Corneille et Roméo et Juliette de Shakespeare.

FRENCH.

HONOURS.—SECOND PAPER.

Thursday, 29th June.—10 A.M. to 1 P.M.

20. 1. Traduire en anglais :—

(a.) La plus incontestable vérité dans la sombre peinture des premiers âges est la vérité de la couleur. Elle produit l'illusion et donne du crédit et de la vraisemblance aux inventions du poète. Lucrèce s'est bien gardé de placer à l'origine du monde les aimables félicités de l'âge d'or. Ce n'est pas une idylle que la vie de ces premiers hommes, créés par le hasard, misérables enfants d'une aveugle nature, abandonnés par elle à leur ignorance et à leur dénuement, cherchant leur nourriture sous un chêne, se couchant nus sur une terre nue, comme des sangliers, vigoureux, mais sans autres armes que des pierres et des branches arrachées aux arbres, surpris pendant leur sommeil au fond de leurs cavernes par quelque monstre plus puissant, dévorés, engloutis, “se sentant descendre vivants dans un sépulcre vivant,” ou bien, échappés à la griffe de leur ennemi, courant à travers la plaine avec d'horribles cris, leurs mains tremblantes appliquées sur leurs hideuses blessures qu'ils ne savaient guérir. Un poète des âges classiques eût sans doute reculé devant de pareilles descriptions; le goût scrupuleux d'un Virgile en eût un peu dissimulé l'horreur sous l'élégance et l'harmonie. Mais, s'il est permis de peindre avec brutalité une nature brutale, si ce que nous appelons la couleur locale est un charme, on ne peut qu'admirer ces scènes hardiment peintes auxquelles d'ailleurs conviennent, par une heureuse rencontre, une langue encore rude, une versification peu polie.

20.

(b)

Le Repas préparé.

Ma fille, laisse là ton aiguille et ta laine ;
 Le maître va rentrer ; sur la table de chêne
 Avec la nappe neuve aux plis étincelants
 Mets la faïence claire et les verres brillants.
 Dans la coupe arrondie à l'anse en col de cygne
 Pose les fruits choisis sur des feuilles de vigne ;
 Les pêches que recouvre un velours vierge encor,
 Et les lourds raisins bleus mêlés aux raisins d'or
 Que le pain bien coupé remplisse les corbeilles,
 Et puis ferme la porte et chasse les abeilles .
 Dehors le soleil brûle, et la muraille cuit.
 Rapprochons les volets, faisons presque la nuit.
 Afin qu'ainsi la salle, aux ténèbres plongée,
 S'embaume toute aux fruits dont la table est chargée
 Maintenant, va puiser l'eau fraîche dans la cour ;
 Et veille que surtout la cruche, à ton retour,
 Garde longtemps, glacée et lentement fondue,
 Une vapeur légère à ses flancs suspendue.

15. 2. (a) Lire attentivement la fable suivante, puis la résumer en français et en indiquer très-clairement le sens.

20. (b) Expliquer, en français, les expressions imprimées en lettres italiques, et faire à leur sujet toutes les remarques grammaticales et autres que vous jugerez à propos.

Rien de trop.

Je ne vois point de créature
Se comporter modérément.
 Il est certain *tempérament*
 Que le maître de la nature
 Vent que l'on garde en tout. Le fait-on ? Nullement.
 Soit en bien, soit en mal, *cela n'arrive guère.*
 Le blé, riche présent de la blonde Cérés,
 Trop *touffu* bien souvent, épuise les guérets⁽¹⁾ :
En superfluités s'épandant d'ordinaire,
Et poussant trop abondamment,
Il ôte à son fruit l'aliment.
 L'arbre n'en fait pas moins : *tant le luxe sait plaire*
 Pour corriger le blé, Dieu permit aux moutons
De retrancher l'excès des prodigieuses moissons :
Tout au travers ils se jetèrent,
Gâtèrent tout, et tout broutèrent ;
 Tant que le Ciel permit aux loups
 D'en *croquer* quelques-uns : ils les croquèrent tous ;
 S'ils ne le firent pas, du moins *ils y tâchèrent.*
 Puis le Ciel permit aux humains
 De punir *ces derniers* : les humains abusèrent
 A leur tour des ordres divins.
 De tous les animaux, *l'homme a la plus de pente*
A se porter dedans l'excès.
 Il faudrait faire le procès
Aux petits comme aux grands. Il n'est âme vivante
 Qui ne pêche en ceci. Rien de trop est un *point*
 Dont on parle sans cesse, et qu'on n'observe point.

(1) Fields.

COMMERCIAL FRENCH.

Wednesday, 28th June.—2 to 3.30 P.M.

The whole of this Paper should be answered.

25. 1. Translate into English :—

Londres, le 1^{er} Décembre 1904.Messieurs Leblanc et Fils,
Le Havre.Nous avons bien reçu votre honoree du 29 écoulé, et vous
créditons à l'échéance du montant des remises y incluses,
savoir :—

frs. 2,500 au 10 ct.

„ 1,000 „ 15 „

D'après vos instructions nous avons expédié à votre adresse
par le vapeur "St. Hélène" les 25 balles de laine, et vous
remettons les connaissements et la facture se montant à
472*l.* 6*s.* 1*d.*, valeur au 21ct., que nous portons à votre débit.Nous sommes fâchés de n'avoir pas réussi à en acheter
davantage, mais votre limite de 1*s.* 2*d.* et le peu de choix de
laine actuellement sur notre place convenable pour vos besoins,
nous ont empêchés d'exécuter votre ordre en entier.Pour la régularité de nos écritures nous vous remettons,
ci-inclus, relevé de votre compte-courant, arrêté ce jour et vous
prions de nous dire, après vérification, si vous êtes d'accord avec
nous.

Agréez, Messieurs, nos civilités empressées.

A. MERCIER ET C^{IE}.

35. 2. Write a letter in French to a firm of manufacturers in Manchester, offering to represent them and travel for them in France and Spain. Mention your previous experience and references, the languages you know, and the remuneration you would expect to receive for your services.
16. 3. Explain in French the meaning of the following commercial expressions :—*Days of grace, limited liability company, "bear" transactions, floating policy.*

Either

24. 4. Translate the following market report :—

Sucres.—On débute calme aux prix de la veille. En séance, le marché se raffermi et la clôture se fait avec une hausse de 25 centimes pour les mois rapprochés, et sans changement sur la veille pour la future récolte.*Cafés.*—La situation s'est sensiblement améliorée. Nous avons eu un bon courant d'affaires en Haiti et en Porto-Cabello à prix fermes et même en légère reprise.*Poivres.*—Marché calme, prix fermes. Ventes de la semaine —On cote en disponible :—Malabar, frs. 91 à 92 ; Singapore frs. 90 à 91 les 50 kil. à l'entrepôt, esc. 2½ % comptant. Emballage compris, tare 1½ % ; droits de douane, frs. 208 par 100 kil.

Pétrole.—Le raffiné d'Amérique s'est raffermi sous l'influence d'une demande plus active pour le disponible et livrable sur le mois prochain ; les termes plus éloignés ont également participé à l'amélioration.

Or (instead of Question 4)—

5. (a) Translate into English the following sentences :—

- (1) Au cours actuel du change cela reviendra à environ 20l. le tonneau.
- (2) Les marchandises sont de diverses provenances.
- (3) La vente se fait de gré à gré.
- (4) La banque nous a accordé un crédit à découvert.

(b) Translate into French :—

- (1) We must collect our outstanding debts.
- (2) The steamer is advertised to call at the Mediterranean ports.
- (3) The shipbuilding trade is slack at present.
- (4) The shipping charges include the following items :—*Freight, packing and marking, cartage, harbour dues, and consular certificate.*

GERMAN.

LOWER GRADE.

Monday, 26th June.—2 to 4.30 P.M.

To secure full marks, the whole of this Paper should be answered, and the German script used, at least in the passage for composition, 2 (b.).

18 1. Translate into English :—

(a.) Der Mann blieb sitzen und sah einen Augenblick dem davonfliegenden Vogel nach, ehe er weiter ging. Es war der alte Magister Timotheus, mit dem kleinen bekannten Stöckchen in der Rechten, während die Linke bedächtig auf dem Rücken ruhte. Er ging so zart und sachte, daß nur selten ein trocknes Zweiglein unter seinem Tritte knackte oder das vorjährige Laub ihm um den Fuß raschelte. Jetzt sah er auf seine Uhr und schritt dann etwas schneller vorwärts, bis er an den sonnigen Walbrand kam, wo die große Wiese voll gelber Butterblumen vor ihm lag. Hier war er auch an den Holzsteg gelangt, der über den quer durch die Wiese laufenden Fluß vom Wald zur Stadt führte. Diese streckte sich drüben entlang, mit ihren spitzen Dächern und Türmchen ; eine alte grasbewachsene Mauer zog sich noch rings um sie her. Die Morgen Sonne blinkte freundlich in den kleinen Fensterreihen und an dem vergoldeten Knopf des Kirchturmes. Dahinter lag in grauem Duff das Gebirge, nur auf einer Seite zog sich der Wald beinahe bis an die Häuser heran. Schnell floß das grünlüche Gebirgswasser unter dem Steg dahin. Der Alte hatte sich auf das Geländer gestützt und blickte vergnügt auf die spielenden Wellen nieder ; und als sich gerade unter ihm ein ruhiger Wasserpiegel bildete, da kam von unten sein Gesicht wieder herauf, ganz ebenso freundlich und hübsch und würdig wie es von oben hinabschaute.

Steg = narrow bridge.

Geländer = railing, balustrade.

- (b.) Ich war ein kleiner Knabe, stand sehr taum auf dem Bein,
Da nahm mich schon mein Vater mit in das Meer hinein
Und lehrte leicht mich schwimmen an seiner sichern Hand
Und in die Fluten tauchen bis nieder auf den Sand.
Ein Silberhütchen darf er dreimal ins Meer hinab,
Und dreimal muß' ich's holen, eh' er's zum Lohn mir gab.
Dann reich' er mir ein Ruder, ließ in ein Boot mich gehn,
er selber blieb indessen mir treu zur Seite stehn,
Wie's mit, wie man die Bogen mit schwarzem Schtäge bricht,
Wie man die Birbel meidet und mit der Brandung sicht.

Birbel = eddiea.

Brandung = surf.

2. (a.) Write out from memory a German version of the passage read out.

(b.) Translate into German:—

A nobleman had three sons, who were all three fine lads, and equally dear to their parents. But as their father was not very rich, he said one day to the two eldest, "My boys, you will be poor all your life if you remain at home: go out into the world, and you will perhaps make your fortune in foreign lands." The young men were only too glad to hear this, and were soon ready to start. Their mother was very sorry to let them go, but what could she do? They got (steigen) on their horses, and rode together for two days. On the third day they came to a spot where a road went to the right, and another to the left. A poor old woman was sitting there on a stone. They said "Good day" to her, and gave her some money. "Will you show me your hands, young gentlemen?" said she. They laughed, and did so (say, did it). She looked into the hands as one who reads a book. "Go you this way," said she to the first, "and you will marry the most beautiful maiden on earth." And to the second, "Go you that way, and you will win a king's daughter and a crown." So they parted (schieden) from one another, and went each his own way.

5. 3. Write out, in German, the nominative and genitive singular, and the nominative plural, of—*hard stone, that beautiful woman, the same gentleman, my younger brother*; and the whole singular of *Frederick the Great*.
5. 4. Give the German for—one and a half; two and a third; half past five o'clock; four times sixteen is sixty-four; a fortnight ago.
5. 5. What do you understand by separable and inseparable verbs? Exemplify your answer by giving the *familiar* second person singular of the imperfect and perfect indicative, and of the imperative, of the German for eight of the following:—*To give away, to forget, to begin, to cut to pieces, to command, to take off, to discover, to get (obtain), to break open, to go in.*
10. 6. Translate into German:—
- (a.) When the boy came into my room, he pulled a letter out of his pocket, and laid it on the table.
- (b.) Do you know who broke (*say, has broken*) this window? I think Charles did it with his ball.
- (c.) During the winter we had many fine days, and little ice and snow.
- (d.) Little girl, if you walk (*say, thou walkest*) on the grass, you will get wet feet, and become ill.
- (e.) Children who are born on the twenty-ninth February have a birthday every fourth year.

GERMAN.

LOWER AND HIGHER GRADES.

Monday, 26th June.—2.45 P.M.

This Paper must not be seen by any Candidate.

To be read out twice by the Supervising Officer (or a Teacher) at 2.45 P.M. The substance of this story is to be reproduced by the candidates in German from memory. No notes may be made while it is being read.

Before it is actually read, the Supervising Officer should explain that candidates are not to aim at reproducing the passage in all its details, and in the same words or order of words as the original. They should attempt to tell the story in German in their own way. Grammatical accuracy is considered very important, and special value is attached to anything that shows a knowledge of idiomatic German.

A countryman who visited for the first time a great city was astonished to see so many people in the streets, and could not understand why they seemed all to be in such a hurry. He also admired the splendid shops, and it was a great pleasure for him to walk from window to window, and look at the fine things laid out there. In one of the windows he saw nothing but foreign money of every kind, in gold, silver, and paper notes. As he had never heard that one could sell and buy money, he stepped up to the open door, and asked a well-dressed young man who was writing at his desk what they had for sale. "Fools," was the curt reply. "Oh," said our friend from the country, "then you must have done good business, for I can only see one fool left in your shop."

GERMAN.

HIGHER GRADE.

Monday, 26th June.—2 to 5 P.M.

The whole of this Paper should be answered, and the German script used at least in the passage for translation into German, 2 (b).

1. Translate into English :—

18. (a.) Stunden flossen vorüber. In dem einsamen Wirtshaus, das an der Wegscheide liegt, wo der Bergbewohner die Landstraße verläßt, setzten sie ein. Seit Mittag waren sie nun gewandert; Margret biß mit Wonne in ein kräftiges Butterbrot und trank in langen Zügen aus dem Glase, das ihr der Burche hinhielt. Wie das schmeckte! Der feurige Landwein rollte ihr erwärmend durch die Glieder und vertrieb die letzten Sorgen von ihrer Seele. Der Valentin sagte, sie könne nur immer „bu“ zu ihm sagen. Das tat sie denn auch, und leicht und flüßig glied das „Du“ über die Lippen, als hätte sie's ihr Lebtag gesagt. Nachdem sie eine Stunde geraftet, brachen sie wieder auf. Der Regen hatte aufgehört; die volle Mondscheibe schimmerte mit hellem Licht hinter zerrissenen Wolken. Der Weg wurde steinig und mühsam; große Furchen hatte das strömende Wasser ins Erdreich gerissen; der

VALUR.

Fuß glitt aus, und mehr als einmal mußte der kräftige Arm des Mannes das strauchelnde Mädchen stützen. Margret wurde sehr müde, ihr muntres Pflaunders hatte aufgehört; wie ein verschüchtertes Vögelchen duckte sie sich an den starken Gefährten. Wie gut der war! Er führte sie wie ein Kind, er hob sie über Steine, und ab und zu sprach er tröstend: „Wald sind wir dabei.“ Zuletzt trug er sie mehr als er sie führte. Margret empfand alles wie im Traum; sie hielt die Augen geschlossen und dachte, es gehe so in die Ewigkeit weiter. Sie fuhr fast erschrocken zusammen, als der Bursche plötzlich stehen blieb und mit der Hand in einige Entfernung wies, wo hie und da noch ein Lichtlein glänzte: „Kyllburg!“ Sie schlugen nun einen schmalen Pfad bergaufwärts ein; Margret war wieder wach. Hier der Weg, der führte zur einsamen Hütte droben auf talher Höhe, bald war sie zu Haus und wieder die alte Margret — und der Traum hatte ein End! Sie eilte nun vor ihrem Beschützer her; hier kannte sie jeden Schritt, jeden Stein, jedes Bäslerlein. In ihrem Herzen ging es hin und her, auf und nieder, Bedauern und Freude: Bedauern ums Scheiden von dem Begleiter, Freude aufs Wiedersehen mit der Mutter. Sie mußte selbst nicht, wie das so seltsam war.

12.

(b.)

Der Waldfee.

Wie bist du schön, du tiefer blauer See!
Es jagt der laute Wind, dich anzuhauen,
Und nur der Wasserlilie reiner Schnee
Wagt schüchtern aus der stillen Flut zu tauchen.

Hier wirft kein Fischer seine Angelschnur,
Kein Raden wird auf deinem Spiegel gleiten,
Wie Chorgesang der feiernden Natur
Kraucht nur der Wald in diesen Einsamkeiten.

Witbrosen streu'n dir ihren Weihrauch aus,
Und würz'ge Lannen, die dich rings umragen,
Und die wie Säulen eines Tempelbau's
Das wolkenlose Blau des Himmels tragen.

Sinkt kannst' ich eine Seele, ernst, voll Ruh',
Die sich der Welt versatz mit sieben Siegeln,
Die, rein und tief, geschaffen schien wie du,
Nur um den Himmel in sich abzuspiegeln.

15.

2. (a.) Write out from memory a German version of the passage read out.

30.

(b.) Translate into German:—

A gentleman in Paris was wont every morning, on his way to his business, to give a half-franc to a blind beggar. One day, by mistake, he threw a napoleon into the beggar's box. Some hours later he discovered his error, and as he was not rich, he resolved to speak to the man on his way home. When he passed by the place, he found that the beggar had left, but a street-sweeper told him where he was living. Having gone to the address indicated, the gentleman found the beggar's name on a door on the third storey of a very respectable house. A tidy-looking maid-servant opened, and requested him to step into a well-furnished room, and take a seat. After a minute or two, the beggar made his appearance neatly dressed, and the matter was explained to him. "My clerk," he said, "is just making up the day's accounts, and if a napoleon has been found in the box, it shall be restored to you." The piece of gold was found, and handed to the visitor. As the latter was retiring, however, the beggar called out to him, "I beg your pardon, my dear sir, but you have forgotten to give me the half-franc out of it (herausgeben)."

5. 3. Give the nominative and genitive singular, and nominative plural, with the definite article, of the German for any *ten* of these words:— Passion, promise, reward, complaint, sigh, advice, earl, willow, custom, ray, fraud, spark, proof, prayer, curse.
5. 4. Write suitable sentences showing the meaning and prepositional government of *five* of the following verbs:—*versichten*, *absehen*, *sich bewerben*, *schmelzen*, *trachten*, *sich befehlen*, *sich richten*, *sich berufen*.
5. 5. From *five* of the following nouns form as many pairs of simple (not compound) adjectives with their meanings:—*Erde*, *Herr*, *Fei*, *Geschäft*, *Mund*, *Stre*, *Ette*, *Ernst*.
10. 6. Translate into German:—
- (a.) Germany is rich in forests and rivers, as well as in fine old castles, such as travellers like to see.
- (b.) My friend asked me to accompany him, but I did not feel disposed for a walk.
- (c.) The weather being favourable, you should have taken a holiday.
- (d.) He tries to solve the riddle, but has not yet succeeded in doing so.
- (e.) You have heard my view of the matter; now do as you please.

 GERMAN.

HONOURS.—FIRST PAPER.

Monday, 26th June.—2 to 5 P.M.

The whole of this Paper should be answered, and the German script used, at least in the passage for composition, I.

45. I. Translate into German:—

At this moment an omnibus came to a standstill under the branches of the elm-tree. A gentleman alighted, but it was only to offer his hand to a young girl, whose slender figure, nowise needing such assistance, lightly descended the steps, and made an airy little jump from the final one to the sidewalk. She rewarded her cavalier with a smile, the cheery glow of which was seen reflected on his own face as he re-entered the vehicle. She then turned towards the house, to the door of which, meanwhile, the driver had carried a light trunk and a band-box. First giving a sharp rap of the old iron knocker, he left his passenger and her luggage at the doorstep and departed.

“Who can it be?” thought Hepzibah; “the girl must have mistaken the house!”

The young girl, so fresh, so unconventional, and yet so orderly as you at once recognised her to be, was indeed widely in contrast, at this moment, with everything about her. But even as a ray of sunshine, fall into what dismal place it may, instantaneously creates for itself a propriety in being there, so did it seem altogether fit that the girl should be standing there at the threshold. The old maiden herself began to feel that the door ought to be shoved back, and the rusty key turned in the reluctant lock.

"Can it be Phœbe?" questioned she within herself. "It must be little Phœbe; for it can be nobody else—and there is a look of her father about her, too. But what does she want here? And how like a country cousin to come down upon a poor body in this way, without so much as a day's notice, or asking whether she would be welcome! Well, she must have a night's lodging, I suppose, and to-morrow the child shall go back to her mother!"

30. II. Write a German essay or on letter one of the following subjects:—

- (a.) Meine Lieblings-Episode der schottischen Geschichte.
- (b.) Kurzer Abriss eines meiner liebsten (englischen oder deutschen) Romane.
- (c.) Ein Sommer-Ausflug mit Unterbrechungen durch unvorhergesehene Ereignisse.

GERMAN.

HONOURS.—SECOND PAPER.

Thursday, 29th June.—2 to 5 P.M.

The whole of this Paper should be answered.

15. 1. Translate into English:—

(a.) Ist es denn Frauenlos und Frauenglück unter die Gewaltigen der Geschichte zu zählen und Herrscherkronen und Herrscherleiden im Kopf und im Herzen zu tragen? Königin Luise hätte wohl, wenn das Geschick es von ihr gefordert haben sollte, aus der Pflicht auch die Kraft und den Geist entwickelt, die diese Stellungen erheischen; aber sie ist nicht dazu berufen worden, und sie hat sich immer glücklich gepriesen vor allem Frau sein zu dürfen, auch als sie Königin war. Sie war eben wie andere Frauen auch, nichts Besonderes und abnorm Gemaltes, aber die vollendete Weiblichkeit mit all' ihrer Schönheit und Reinheit, in all' ihrer Anmut und Würde, in all' ihrer Heiterkeit und Hoffnungskraft; eine von vielen und doch die eine unter allen. Als sie siebzehnjährig aus bescheidenen Verhältnissen eintrat in den ihr völlig fremden Kreis des großen glänzenden Hofes, der in der geistigen Vertümmung des Deutschfranzosenentums, in dem Eingeschlafensein auf den ererbten Lorbeeren, wie sie selber später so treffend es aussprach, verkam, da hat sie, ohne es zu wollen und ohne es zu wissen, diesen Hof reformiert: sie hat die unbefangene Fröhllichkeit wie die gute Sacht und Güte, das deutsche Du im engsten Kreise der Familie, Goethes und Schillers goldene Worte in jene Kreise eingeführt, die im Begriffe schienen zu verflöckeln und zu verwelken.

16. (b.) Was treibt den Menschen hinauf auf jene Bergriesen der Alpenwelt? Ist es nicht ein geheimnisvoller, unerklärlicher Reiz, der ihn anlockt, den überall lauernden Todesgefahren zu trotzen, sein warmes, gebrüchliches Leben über viele Meilen lange Gletscherwüsten zu tragen, oft in der selbsterbauten elenden Hütte es mühselig gegen tobende Stürme und tödlichen Frost zu bergen, um dann, zwischen Tod und Leben hängend, mit kurzem Odem und zitternden Gliedern die schmale Sohle eines majestätisch thronenden Schneegipfels zu gewinnen? Ist es bloß der Ruhm, dort oben gewesen zu sein, dieser farge Lohn fast übermenschlicher Anstrengungen, der ihn auf diese Wolkenföhle ladet? Wir glauben es kaum. Es ist das Gefühl geistiger Kraft, das ihn durchglüht und die toten Schrecken der Materie zu überwinden treibt; es ist der Reiz, das eigene Menschenvermögen, das unendliche Vermögen des intelligenten Willens an dem rohen Widerstande des Staubes zu messen; es ist der heilige Trieb, im Dienste der Wissenschaft dem Bau und Leben der Erde, dem geheimnisvollen Zusammenhange alles Geschaffenen nachzuspüren; es ist vielleicht die Sehnsucht des Herrn der Erde, auf der letzten überwundenen Höhe im Überblick der ihm zu Füßen liegenden Welt das Bewußtsein seiner Verwandtschaft mit dem Unendlichen durch eine einzige, freie That zu besiegeln.

15. (c.) Nun endlich ist mir der erwünschte Tag,
Der langersehnte, seltsiche, erschienen —
Vereint seh' ich die Herzen meiner Kinder,
Wie ich die Hände leicht zusammenfüge,
Und im vertrauten Kreis zum erstenmal
Kann sich das Herz der Mutter freudig öffnen.
Fern ist der fremden Zeugen rohe Schar,
Die zwischen uns sich kampferhühet stellte —
Der Waffen Klang erschreckt mein Ohr nicht mehr,
Und wie der Gulen nachgewohnte Brut
Von der zerstörten Brandstatt, wo sie lang
Mit altverjährtem Eigentum gemistet,
Auffliegt in düsterm Schwarm, den Tag verbunkelnb,
Wenn sich die lang vertriebenen Bewohner
Heimkehrend nahen mit der Freude Schall,
Den neuen Bau lebendig zu beginnen;
So schieht der alte Haß mit seinem nächtlichen
Gefolge, dem hehlhügigen Verdacht,
Der scheelen Mißgunst und dem bleichen Reide
Aus diesen Loren murrend zu der Hölle,
Und mit dem Frieden zieht gefelliges
Vertraun und holde Eintracht lächelnd ein.

5. 2. Frame appropriate sentences, with the English translation, showing the meaning and prepositional government of *five* of the following participles, used adjectively and figuratively:—*besüßigt, erpicht, erhaben, vernarrt, gewandt, aufgelegt, aufgebracht.*
5. 3. Give the German of any *ten* of the following idiomatic prepositional expressions:—*In broad daylight—in the long run—upstairs and downstairs—at all events—in turn—by turns—year in year out—contrary to reason—to (one's) heart's desire—from top to toe—on a sudden—to be on one's guard—beneath his dignity—out of the question.*
5. 4. Form abstract nouns, with the definite article and the meaning, from any *ten* of these:—*beredt, spröde, edel, heiser, sündhaft, neu, fest, hoch, nutzlos, nahe, bequem, schadenstroh, fromm, roh.*
5. 5. Show, by appropriate sentences, the meaning of any *five* of these:—*ohnein, mitgin, demnach, überdies, ausnehmend, weitaus, zusehend, lediglich.*

VALUE.

LEAVING CERTIFICATE EXAMINATION.

985.

10. 6. Translate idiomatically:—
- (a.) I could not help refusing his offer, much as I regretted having to do so.
- (b.) He is too honest a man for us to have to fear his taking advantage of our difficulties.
- (c.) You seem to be determined on proposing for the girl, though I feel sure her parents will not consent.
- (d.) My friend had informed me of his intention to visit me, but I was not prepared for his coming so soon.
- (e.) You will oblige me by speaking to no one about what I told you the other day.

COMMERCIAL GERMAN

Wednesday, 28th June.—4 to 5.30 P.M.

The whole of this Paper should be answered.

25. 1. Translate into English:—

Herrn Selbheim u. Söhne,
Hamburg.

London, den 10. August 1904.

Eingeschlossen erlauben wir uns Ihnen mit Verkaufsrechnung über Ihre 50 Ballen südsische Wolle pr. „Emma“ Rpt. Müller, aufzuwarten, deren Erlös im Betrage von £1228 11 6 in Ihr Kredit gebracht wurde. Sie werden bemerken, daß es uns gelungen ist für die 34 Ballen hochfeine 2s., für die 11 dto. feine 1s. 6d., und für die übrigen 5 geringere 10d. zu bekommen.

Wir zweifeln nicht daran, daß die Verkäufe Ihren Beifall finden werden; ja wir sind so befriedigt von dem Resultat und der Aussicht eine ähnliche Partie zu denselben Bedingungen anbringen zu können, daß wir uns gern, falls nicht unterdessen eine Steigerung bei Ihnen eingetreten ist, an dem Verkauf von 100 Ballen beteiligen möchten, die in zwei Hälften, mit etwa einem Monat Zwischenraum, abzuliefern wären.

Der bei Wollverkäufen gewöhnliche Kredit ist vier Monate, oder 2 % Diskonto per Kassa. Für Detredere haben wir Sie, wie üblich, mit 1 % belastet.

Wir empfehlen uns Ihnen,
Hochachtungsvoll,
W. Krufe u. Co.

35. 2. Reply to the above letter, acknowledging receipt of the enclosed account, of which you take due note. Thank your correspondents for the satisfactory result of the shipment, and say that you will endeavour to make a further consignment on the conditions they suggest. Add any further remarks you think proper.
19. 3. State briefly in German what you know about the trade and chief industries of any two of the following places: *Antwerp, Bremen, Bordeaux, Cardiff, Bombay, Buenos Ayres.*

Eiher—

24.

4. Translate the following market report :—

Kakao. Gute Qualitäten erreichen frühere Preise, wogegen geringere Sorten sehr schwer zu unseren Notierungen verkäuflich sind. Unser Vorrat beträgt ungefähr 1200 Tonnen.

Gewürze. Preise bleiben ohne wesentliche Veränderung. Nachfrage sehr beschränkt.

Metalle. Sehr flau und die Preise sind wieder um 1s. bis 1s. 6d. pr. Str. gefallen; es ist indessen schwer, selbst zu den erniedrigten Preisen zu verkaufen.

Salpeter. Lebhaftige Nachfrage während des ganzen Monats; Käufer wollten sich daher zu einem Aufschlag von 6s. verstehen, während die Exporteure einen solchen von 9d. pr. Str. verlangten.

Getreide. Das Getreidegeschäft lag in der abgelaufenen Woche sehr ruhig. Mit Rücksicht auf die stärkeren argentinischen Verschiffungen war die Kaufkraft für Weizen nur schwach. Roggen knapper angeboten. Mais gut bebaupret.

Or (instead of question 4)—

5. (a) Translate into English the following sentences :—

- (1) Der Gesamtwert des Handelsumsatzes wird auf £120,000 geschätzt.
- (2) Die Vorkäufe sind in vierteljährigen Raten zurückzahlbar.
- (3) Alle Posten werden in das Hauptbuch eingetragen.
- (4) Man zweifelt nicht an der Zahlungsfähigkeit dieser Firma.

(b.) Translate into German :—

- (1) We have taken Mr. A. into partnership.
- (2) Competition is very keen in this article.
- (3) Several small lots of cotton fetched good prices.
- (4) The goods have been sold under cost price.

GAELIC.

25.

Thursday, 29th June.—2 to 5 P.M.

1. Translate into English the following extract :—

Long mhòr uan Eilthìreach.¹

'N am measg chunnaic mi aon long mhòr a thug bàrr orra air .ad; bha iomadh bàta beag a' gabhail d' a h-ionnsuidh, agus thug mi fainear gu robh iad a' deanamh deas gu a cur fa sgaoil. Bha duine leinn as gann a thog a cheann fad an latha, 's a bha a nis ag amharc gu geur air an luing. "An aithne dhuit," thuir mi ris, "ciod i an long mhòr so?" "Mo thruaighe" ! ars' ean, "'s ann domh as aithne; is duilich leam gu bheil barrachd 's a b' àill leam de m' luchd-còlais innte; innte tha mo bhàithrean is mòran de m' chàirdean a' dol thairis

¹Emigrant.

air ìmrich fhada do America ma Thuata; agus is bochd nach robh agamsa na bh-cireadh air falbh mi cuideachd.¹⁹ Tharruing sinn a nunn d' an ionnsuidh; oir tha mi ag aideachadh gu robh toil agam na daoine so fhaicinn a bha an diugh a' dol a ghabhail an cead deireannach a dh' Albainn, air tòir dùthcha far am faigheadh iad dachaigh dhaibh fhéin 's d' an teaghlàichean. Cha'n 'eil e comasach a thoirt air aon duine nach robh 's an làthair an sealladh a chunnaic mi a thuigsinn. Cha tig an latha a théid e as mo chuimhne. Bha iad an so eadar bheag agus mhòr, o'n naoidhean nach robh ach seachdain a dh' aois gus an scann duine liath a bha trì fichead bliadhna 's a deich.

15. 2. Translate into English *one* of the following:—

(a) *Badan fuaich.*

Ceud fàilt' ort fhéin, a bhadaid fhraoich,
Bho thir nan aonach àrd,
An tìr a dh' àraich iomadh laoch,
Ge sgaoilt' an diugh an àl;
Tha snuadh mo dhùthcha air do ghruaidh,
Seasaidh tu fuachd is blàths:
'S e mheudaich dhomh cho mòr do luach
Gu'n d' fhuair mi thu bho'n Bhàrd.

(b) *Ealadhna¹ Dhonnachaidh Bhàin, am Bàrd.*

Dheanainn duit ceann² is crann³ 's an Earrach
An àm chur ghearran an èill;
Is dheanainn mar chàch air tràigh na mara
Cur àird air mealladh an éisg;
Mharbhainn duit geòidh is ròin is eala,
'S na h-èib air bharran nan geug;
'S cha bhì thu ri d' bheò gun seòl air t' aran
'S mi chòmhnuidh far am bì féidh.

¹ Accomplishments.

² He who leads the horses.

³ The man who guides the plough.

20. 3. Reproduce, in Gaelic, and, as far as possible, in your own diction and idiom, the passage read out.
25. 4. Translate into Gaelic *one* of the following passages:—

(a) *Shinty.*

The games of the boys were all athletic,¹—throwing the hammer, putting the stone, leaping, wrestling, and the like. But the favourite game was "shinty," called *hockey*. I believe, in England. This is played by any number of persons, as many as a hundred often engaging in it. Each has a club, or stick bent at the end, and made short or long, according as it has to be used by one or both hands. The largest and smoothest field that can be found is selected for the game. The combat lies in the attempt of each party to knock a ball beyond a certain boundary in the opponents' ground. The ball is struck by any one on either side who can get at it. Few games are more exciting, or demand greater physical exertion, than a good shinty match.

¹ Fearail.

(b) *About Seals.*

Very well, then. It is now May, about the 20th, and we are at the other side of the world, in the Island of St. Paul. It is cool and misty; but there are few warm or clear days in this quarter, even in summer. We can see a few large seals on the rocks, seven feet long every one of them. The nearest one shows no fear of us, and we need not fear him. He is very fat, and it is well for him that he is so. When he has his family gathered round him on that rock, he will stay there to defend them against all comers for the next three or four months, and during that time he will neither eat nor drink. Young ones are there also. When these are about three months old, they venture into the water; but at first they soon scramble out again, spitting and crying as loud as they can. In a few days, however, they learn to swim perfectly.

V. Answer any *two* (not more) of the following four questions:—

(1.) Give the genitive singular and nominative plural of *bean*, *bò*, *caora*, *cù*, *long*, *slàbh*.

(2.) Give, with examples, three cases in which the Article is used differently in Gaelic and English.

(3.) Translate the following sentences into idiomatic Gaelic:—

Both are equally good. He gave thirty shillings each for the sheep. I shall be back before Monday. He will be twelve years of age a month hence.

(4.) Express in English the meaning of these sentences and phrases:—

Ole air mhaith le càch e. Tha mi sgìth, 's mi leam fhìn.
Cha b' fhearr a nasgaidh e. Cha bu ruith leis ach leum.

GAELIC.

Thursday, 29th June.—2.45 P.M.

This paper must not be seen by any Candidate.

To be read out twice, slowly and in an accent with which the Candidates are familiar, by the Supervising Officer (or the Teacher) at 2.45 P.M. The substance of this story is to be reproduced by the Candidates in Gaelic. No notes may be made while it is being read.

Before commencing to read it, the Supervising Officer or the Teacher must write upon the blackboard the title of the story as follows: "Bàthadh a' Chuilain." He should also warn the Candidates that they are not to aim at reproducing the passage in all its details, and in the same words or order of words as the original. What is desired is that they should attempt to relate the story in Gaelic, in their own diction and idiom. Great importance is attached to grammatical correctness, and full credit will be given for idiomatic phraseology.

BÀTHADH A' CHUILEIN.

Chaidh binn a' chuilain a thoirt a mach air ball, 's b'e sin a bhathadh; agus air son mò chuid-sa de'n ghnòthach, 's ann orm a thainig a' bhinn a thoirt gu buil, 's e sin ri ràdh, 's ann domh a

b'éigin mo chompanach beag, b'oidheach a chur gu bás. Thog mi lea'm e ann am bhroilleach, 's mo chridhe an impis sgáineadh; agus on a bha'n t-uisge a' síleadh gu trom chomhdaich mi e le sgiath mo pheiteige gu a chumail tioram. 'Nuair a ráinig mi an linne dhubb 's am biodh iad a' báthadh chon is chat, bha i ag amharc cho dorcha 's nach robh de chruas cridhe agam na leigeadh dhomh a thilgeil innte. Thill mi ceum air m'ais o bhruaich na h-aibhne 's chaidh mi stigh fophreas beag seilich, agus chrúbain mi an sin gus an robh mi cho fíuich 's ged a bhithinn air iao thumadh 's an abhainn. Cia fhad a dh' fhanainn mar sin na maireadh solus latha cha'n fhios domh, ach bha e nis a' fas dorcha, 's b'eudar an tigh a thoirt orm. Fíuich gus an craiceann, air chrith leis an fhuachd, 's ach beag as mo chíall leis an eagal, leum mi air mo bhonn 's ghabh mi roid chum bruaich na h-aibhne 's thilg mi an dùile bhochd 's an linne. Thug e aon sgál as. Cha d' éisd mi ri tuillidh; ghlaodh is chaoin mi, 's theich mi cho luath 's a bheireadh mo chasan mi. 'Nuair a rainig mi an tigh, thilg mi dhìom m' aodach 's leum mi do m' leabaidh. Cha bu luaithe thigeadh neul cadail orm na bha sgál a' chuilein 'n am chluais. Mhair an gnothach mar sin fad na h-oidhche. 'S a' mhaduinn bha mise cho tinn 's nach b' urrainn domh mo cheann a thogail bhàrr mo chluasaig. Bha dithis 's an tigh an latha sin aig an robh ionndrainn glé ghoirt. B'iad sin máthair agus companach a' chuilein, 's bha iomadh latha 'n a dhéigh sin mu'n deachaidh sgál a' ehreutair bhig as mo chluais.

 SPANISH.

Thursday, 29th June.—2 P.M. to 5 P.M.

The whole of this Paper should be answered. Candidates will not be allowed to pass unless they reach the necessary standard both in composition and in translation.

SECTION I.

15. 1. Translate into English:—

(1) Dueño ya de Gibraltar y celebrada la paz con los rebeldes, Mahomed, el rey moro, no tardó en recobrar Ronda y la misma Algeciras, que le había sido arrebatada poco antes por los cristianos. Defendiólas y volvió á Granada, mas no para gozar mucho tiempo de la paz, sino para abrir pronto una nueva campaña en que no fué muy afortunado, á pesar de su valor y su constante arrojo. Recibió á poco noticia de que iban los cristianos otra vez sobre Gibraltar, que miraban justamente como la fortaleza más importante de Andalucía. Sitióronla por tierra con numeroso ejército y por mar con una escuadra que recorría sin tregua el Estrecho y tenía cerrado el paso á las naves de Africa. Hallaron mucha oposición en los sitiados, súbditos todos del rey de Fez; pero á fuerza de días y con riguroso bloqueo llegaron á ponerlos en tales apuros, que ya casi contaban con decidir á favor suyo la victoria. No dejaban salir un solo soldado de la plaza; mas aunque procedían en esto con mucho rigor no pudieron impedir que algunos se fugasen y fuesen aceleradamente á pedir á Mahomed que bajase

á socorrer á los cercados en virtud de la alianza que con Hasán tenía. Mahomed, lejos de negarse á la demanda, accedió con tan buena voluntad y tal entusiasmo que, reuniendo con la mayor rapidez á sus mejores jinetes, salió y entró en batalla con los cristianos.

- 15 (2) DOÑA LEONOR, DOÑA ROSA Y JULIANA (*las tres salen de casa de Don Gregorio y hablan inmediatas á la puerta*). DON GREGORIO, DON MANUEL.

D^a. Leonor.—No te dé cuidado. Si él te rine, yo me encargo de responderle.

Juliana.—Siempre metida en un cuarto sin ver la calle, ni poder hablar con persona humana. ¡Qué fastidio!

D^a. Leonor.—Mucha lástima es ego de ti.

D^a. Rosa.—Milagro es que no me haya dejado debajo de llave, ó me haya llevado consigo, que aún es peor.

Juliana.—Le echaría yo más alto que . . .

D. Gregorio.—¡Oiga! ¿Adónde van Vds., niñas?

D^a. Leonor.—La he dicho á Rosita que se venga conmigo para que se esparza un poco. Saldremos de aquí por la puerta de San Bernardino y entraremos por la de Fuencarral. Don Manuel nos hará el gusto de acompañarnos.

D. Manuel.—Sí, por cierto, vamos allá.

D^a. Leonor.—Y mire Vd. Yo me quedo á almorzar en casa de Doña Beatriz. Me ha dicho tantas veces que porqué no llevo á esta por allá, que ya no sé que decirla—con que, si V. quiere, irá conmigo esta tarde; almorzaremos, nos divertiremos un rato por el jardín y al anochecer estaremos de vuelta.

D. Gregorio.—Vd. (*á Doña Leonor, á Juliana, á Don Manuel y á Doña Rosa según lo indica el diálogo*), puede irse adonde guste. Vd. puede ir con ella. . . . Tal para cual. Vd. puede acompañarlas, si lo tiene á bien; y Vd. á casa (*coge del brazo á D^a. Rosa haciendo además de entrarse con ella en su casa*).

24. 2. Translate into Spanish:—

Early on the morning of the 24th January I embarked for Seville on the small Spanish steamer, the "Betis." The morning was wet, and a dense mist prevailed, which prevented me observing surrounding objects. After proceeding about six leagues, we reached the north-eastern extremity of the Bay of Cadiz, and passed by San Lúcar, an ancient town near the spot where the Guadalquivir falls into the sea. There the mist suddenly disappeared, and the southern sun burst forth in full brilliancy, enlivening all around, and particularly myself, who had been walking up and down the deck all the morning in a somewhat gloomy state of mind. We entered the mouth of the great river, and anchored for a few minutes opposite a small village called Bonanza, where we received several passengers, and again proceeded.

There is not much in the appearance of the Guadalquivir to interest the traveller. The banks are low and destitute of trees; the adjacent country is flat, and only in the distance is a blue mountain range to be discerned.

14. 3. Write a Spanish version of the passage read out.

SECTION II.

8. 4. Write out the pres. indicative and pres. and imperf. subjunctive of the following verbs:—*Contar, querer, venir, traer, oír, convencer*. Give the second pers. sing. imperative of *dar, tener, hacer, pedir, venir, decir*.
9. 5. Mention the principal rules for the employment of the subjunctive mood in Spanish. Give examples showing when the conjunctions *aunque, hasta que, cuando*, and *si* require the subjunctive, and when they are employed with the indicative.
6. 6. (a) Translate into English the following sentences:—
- (1) Estaba para decirlo á Vd.
 - (2) Esta señora se viste á la española.
 - (3) Por poco que coma este niño se encuentra siempre bien.
 - (4) Se trata de no equivocarse en el asunto.
 - (5) Mi hijo estudia para abogado.
 - (6) El buque está sobre el puerto.
9. (b) Translate into Spanish:—
- (1) Whose hat is this? It is my father's.
 - (2) As soon as I have finished my work, I shall come.
 - (3) Somebody must have said it to him.
 - (4) Do not let yourself be deceived by him.
 - (5) He is nearly fifty years of age.
 - (6) I am astonished that he has gone away so early.

SPANISH.

Thursday, 29th June.—2.45 P.M.

This Paper must not be seen by any Candidate.

To be read out twice by the Supervising Officer (or a Teacher) at 2.45 P.M. The substance of this story is to be reproduced by the Candidates in Spanish from memory. No notes may be made while it is being read.

A rich gentleman went one day to a poor artist and asked him to paint his portrait, saying that, if he made a good likeness, he would pay him any price he asked for the work.

The artist painted an excellent portrait for which he asked a hundred dollars; but the gentleman, thinking he would get it cheaper, said that it did not please him, and refused to pay that amount. The painter then said that he would retain the portrait himself. Having fixed it up outside his house, he put under it the words "Seized for debt." The gentleman, who was well known in the town, seeing that everybody was laughing at his expense, was finally obliged to go to the artist and get the portrait removed, after paying the amount he owed

MATHEMATICS.

LOWER GRADE.—I

Wednesday, 21st June.—11 A.M. to 1 P.M.

10. Candidates should answer only six questions, namely, Nos. 1, 2, 3, 4, and any two of the other five questions. All the figures should be accurately drawn, and, where geometrical constructions are employed, the construction lines should be shown. Proofs of geometrical constructions need not be given unless specially asked. Marks are given for neatness and good style.

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.

15. 1. Prove that when two triangles have the three sides of one respectively equal to the three sides of the other, they are equal in all respects.

In the quadrilateral $ABCD$ the opposite sides AB , CD are equal, and the diagonals AC , BD are equal; prove that the angles ABC , BCD are equal.

15. 2. Prove that the sum of the three angles of any triangle is equal to two right angles.

Hence find the number of degrees in an angle of an equiangular polygon of n sides.

15. 3. Draw a triangle ABC in which $AB = AC = 6$ cm, and $\angle BAC = 45^\circ$ without using the protractor. From B draw BD at right angles to AC , and take a point E in AD such that $ED = DC$. Join BE .

Prove that the angle AEB is equal to five times the angle ABE .

15. 4. Draw a circle of radius 2 inches; take a point $4\frac{1}{2}$ inches from the centre of the circle, and from it draw a tangent to the circle.

Prove the correctness of your construction.

Measure the length of the tangent.

Find by calculation what its length should be.

Answer TWO questions out of the following five.

15. 5. Prove that parallelograms on the same base and between the same parallels are equal in area, and show that a similar theorem is true for triangles.

A surveyor wishes to find the area of a field which is in the shape of a parallelogram $ABCD$. He finds AB and AD to be each 35 chains and the angle BAD to be 80° . Make a correct drawing of the field to the scale of 1 inch to 10 chains.

Find the number of acres in the field to the nearest acre. [10 square chains = 1 acre.]

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15. 6. $ABCD$ is a quadrilateral in which the diagonals AC, BD are at right angles to each other, prove that $AB^2 + CD^2 = BC^2 + DA^2$.
If AB, BC, CD be 6, 7, 8 cm respectively, use the above relation to find the length of DA to two decimal places.
Draw a quadrilateral with these measurements, having also $AC = 10$ cm; measure BD .
15. 7. A and B are fixed points, 2 inches apart; P is a variable point which moves so that the angle APB is 30° . Construct the complete locus of P , and prove that your construction is correct.
15. 8. ABC is a triangle, whose sides BC, CA, AB are bisected in D, E, F ; prove that AD, BE, CF meet in a point.
15. 9. If AB, CD be two chords of a circle which intersect in an internal point E , prove that the rectangles $AE \cdot EB, CE \cdot ED$, are equal in area.
 PQ is a straight line 6 inches in length, and O is a point in PQ such that $PO = 2.56$ inches. If from O a straight line OR be drawn in any direction 3.01 inches in length, calculate to two decimal places how many inches RO must be produced to S , in order that the four points P, Q, R, S may lie on a circle.

 MATHEMATICS.

LOWER GRADE.—II.

Wednesday, 21st June.—2 P.M. to 4 P.M.

10. Candidates should answer only *six* questions, namely, Nos. 1, 2, 3, 4, and any two of the other five questions. Marks are given for neatness and good style.

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.

Square-ruled paper is provided for the graphical work.

10. 1. Multiply $x^2 + 11x + 28$ by $x^2 - 11x + 30$, and divide the product by $x^2 - x - 20$.

Write down the equation connecting your answer with the three expressions given in the question, and verify this equation when $x = 2$.

10. 2. Simplify

$$(1) \frac{(a+b)^3 - (a-b)^3}{(a+b)^2 + (a-b)^2} \times \frac{\frac{1}{a^3 + b^3} + \frac{1}{2b^3}}{\frac{1}{a^3 + b^3} + \frac{1}{2a^3}};$$

$$(2) \frac{x^3 - a^3}{x^2 - ax + bx - ab} \times \frac{x^3 - b^3}{x^3 + ax - bx - a} \div \frac{x^2 + ax + a^2}{x^2 + ax + bx + ab}.$$

20. 3. Solve the following equations, verifying all your results :—
 (1) $a(x - a) = b(x - b)$;
 (2) $\frac{1}{2}(x - \frac{1}{2}) - \frac{1}{3}(x - \frac{2}{3}) = \frac{1}{4}(x - \frac{5}{4}) - \frac{1}{5}(x - \frac{7}{5})$
 (3) $(x + 1)(x - 2) - (x - 3)(x + 4) = (x - 2)(x - 5)$.

20. 4. Draw in the same diagram the graphs
 $y = x^2 + x + 1$
 $y = 2\frac{1}{4} - x$
 between the limits $x = -3$ and $x = 1$, taking an inch as the unit.

Find from your diagram the co-ordinates of the points common to both curves, and verify your result by solving the equation

$$x^2 + x + 1 = 2\frac{1}{4} - x.$$

Answer TWO questions out of the following five.

15. 5. There are two numbers whose sum is 125. Also $\frac{3}{4}$ of the one number exceeds $\frac{2}{3}$ of the other by 13. Find the numbers.
 15. 6. If 12 eggs cost x pence, and if at the same rate y eggs are bought for one shilling, find the relation between x and y .

Express this relation by means of a curve on squared paper, between the limits $x = 4$ and $x = 36$, taking one-tenth of an inch as the unit.

15. 7. Find the remainder when
 $x^4 + 4x^3 + ax + b$
 is divided by
 $x^2 + 2x + 3$.
 and hence find the values of a and b , which make
 $x^4 + 4x^3 + ax + b$
 a multiple of
 $x^2 + 2x + 3$.

15. 8. A has a pounds b shillings and c pence, B has c pounds b shillings and a pence. If c be less than a , a be less than 12, and b be less than 20, find how much money A has more than B , expressing it in pounds, shillings, and pence.

15. 9. Prove that the sum of the three fractions
 $\frac{b - c}{1 + bc^2} + \frac{c - a}{1 + ca^2} + \frac{a - b}{1 + ab^2}$

is equal to their product.



MATHEMATICS.

LOWER GRADE.—III.

Thursday, 22nd June.—2 P.M. to 3 P.M.

10. Marks are given for neatness, arrangement, and style.

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.

15. 1. Find the prime factors of 193545 and 417384.

Hence write down their greatest common factor as a product of prime numbers, and find its value.

15. 2. Simplify

$$(1) \left(\frac{3}{7} + \frac{11}{15} - \frac{22}{35} \right) \div \left(\frac{26}{45} - \frac{34}{63} \right),$$

$$(2) \frac{.4 - .004}{1 - .99375} \div \frac{52.8}{5.375}, \text{ expressing the answer as a decimal.}$$

15. 3. A room is 15 metres long and 9.8 metres broad, and its floor is to be made of planks 2.5 metres long and 20 centimetres broad. How many planks will be required ?
15. 4. A fortification contains 16800 men and is provisioned for seven months. After three months' siege 5600 men break through the enemy's ranks: for how much longer than the seven months will the provisions last ?
15. 5. If 5 per cent be gained by selling an article for 18s. 4½d., at what price should it have been sold in order to have gained 10 per cent. ?
15. 6. The area of a page of foolscap paper is .733 of a square foot. If the breadth of a page be 8.168 inches, find the length in inches correct to three decimal places, without unnecessary calculation.

MATHEMATICS.

HIGHER GRADE.—I.

Wednesday, 21st June.—11 A.M. to 1 P.M.

10. Candidates should answer only *six* questions, namely, Nos. 1, 2, 3, 4, and any two of the other five questions. Marks are given for neatness and good style. All the figures should be accurately drawn.

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.

15. 1. ABC is a triangle, right-angled at C . On AB , towards the same side as C , the square $ABDE$ is described. A straight line is drawn through E parallel to AC ; from A and D , AH and DG are drawn perpendicular to this line; and from D , DF is drawn perpendicular to BC , produced if necessary. Prove that the square $ABDE$ is equal to the figure $ACFDGH$ and that this figure can be divided into two squares whose sides are equal to AC and BC .
15. 2. Draw a straight line AB 6 centimetres in length, and divide it in H so that the rectangle $AB.HB = AH^2$. Give construction and proof.
Measure AH , HB as accurately as you can, and verify arithmetically whether your construction has given the required result.
15. 3. AB is a chord of a circle which is produced to P , and PT is the tangent from P , prove that $PT^2 = AP.BP$.
Find a point G in the base EF of a triangle DEF such that $DE^2 = EF.EG$.
15. 4. If the vertical angle A of a triangle ABC be bisected internally and externally by straight lines cutting the base in the points D and E respectively, prove that the ratios $BD : DC$ and $BE : CE$ are each equal to the ratio $AB : AC$.
If O be the mid point of BC , prove that $OD.OE = OB^2$.

Answer two questions out of the following five.

15. 5. Construct an equilateral triangle with each side 4 inches long. Construct (without proof) a square equal in area to the triangle.
Show that the area of the triangle is equal to $4\sqrt{3}$ square inches and hence find $\sqrt{3}$ correct to one decimal place by measurement from your figure.
15. 6. Draw a rhombus $ABCD$, each side measuring one inch in length. Divide each side into four equal parts, and name the points of section taken round the figure $A, E, F, G, B, H, J, K, C, L, M, N, D, P, Q, R$. Join $AN, EM, FL, GC, RH, QJ, PK$.
Prove that this figure enables you to measure distances less than an inch expressed in sixteenths of an inch, and show how to find in your figure lines equal to $\frac{5}{16}$ and $\frac{11}{16}$ of an inch.

15. 7. A triangle ABC being given, inscribe a square in it, so that one side of the square may lie on BC , and a vertex on each of the sides AB and CA .

If x be the length of the side of this square, a the length of BC , and p the perpendicular on BC from A , prove that

$$x = \frac{ap}{a+p}.$$

15. 8. A, B, C, D are any four points in space, prove that the straight line which joins the mid point of AB to the mid point of CD intersects the straight line which joins the mid point of AC to the mid point of BD , and that both lines are bisected at their point of intersection.

Show that the straight line joining the mid points of BC and AD is also bisected at that point.

15. 9. Prove that the volume of a tetrahedron is $\frac{1}{6}$ the volume of a prism on the same base and with the same height.

MATHEMATICS.

HIGHER GRADE—II.

Wednesday, 21st June.—2 P.M. to 4 P.M.

- 10 Candidates should answer only *six* questions, namely, Nos. 1, 2, 3, 4, and any two of the remaining five questions. Marks are given for neatness and good style.

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.

Square-ruled paper and four place logarithmic tables are provided.

15. 1. The straight lines A and B give the length and breadth of a rectangle; measure these lines correct to the nearest millimetre and find the area of the rectangle in square centimetres.

If your measurements do not differ from the true measurement by more than half a millimetre, show that the error in your result is less than one square centimetre.

A _____
 B _____

15. 2. Simplify

$$(1) \frac{b+c}{bc} (b^2 + c^2 - a^2) + \frac{c+a}{ca} (c^2 + a^2 - b^2) + \frac{a+b}{ab} (a^2 + b^2 - c^2)$$

$$(2) \frac{(1 - 10x + 5x^2)^2 + x(5 - 10x + x^2)^2}{(1 + 2x + x^2)^4}$$

$$(3) \frac{1 + x^{15}}{(1+x)(1-x+x^2)(1-x+x^2-x^4+x^8)}$$

15. 3. Draw the graphs

$$y = \frac{4}{x}, y = x + 1,$$

from $x = -4$ to $x = +4$;

and find the co-ordinates of their points of intersection correct to two decimal places, (1) by measurement from your figure, (2) by calculation.

15. 4. Prove that the arithmetical mean of two positive quantities is greater than their geometric mean.

The sum of four numbers in geometric progression is 60, and the arithmetic mean of the first and last is 18; find the numbers.

Answer TWO of the following questions.

15. 5. A. rides from P to Q on his bicycle in 2 hours 40 minutes; B. goes by train in 2 hours 48 minutes. If the average rate of the train be 5 miles an hour quicker than that of the bicycle, but the length of the journey by train 16 miles greater than that by bicycle, find both rates and distances.

15. 6. (1) Solve the equation

$$x + \frac{1}{x} = 3,$$

finding both values of x correct to two decimal places, and verifying your solutions.

- (2) Solve the simultaneous equations

$$\frac{y + z - x}{2} = \frac{z + x - y}{3} = \frac{x + y - z}{5},$$

$$x^2 + y^2 + z^2 = 138.$$

15. 7. Prove that

$$\log a^m = m \log a,$$

and that

$$\log \sqrt[n]{a} = \frac{1}{n} \log a.$$

Use the table of logarithms to find the approximate values of

(1) $143.5 \times 6.714,$

(2) $\sqrt[3]{41.38} \times (-0.1674)^4$

15. 8. Express

$$4x^8 + 17x^4y^4 + 4y^8$$

as a product of 4 factors, and employ the result to find the factors of 400170004.

15. 9. If a, b, c be three given numbers, find an expression for x in terms of a, b, c , such that

$$a + x, b + x, c + x$$

may be in harmonic progression.

Verify your result when

$$a = 1, b = 2, c = 4.$$

MATHEMATICS

HIGHER GRADE.—III.

Thursday, 22nd June.—2 P.M. to 4 P.M.

10. Candidates should answer only *six* questions, namely, Nos. 1, 2, 3, 4, and any two of the other five questions. Marks are given for neatness and good style. All the figures should be accurately drawn.

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.

Square-ruled paper and four-place logarithmic tables are provided.

15. 1. Draw the graph of $\sin \theta + \cos \theta$, from $\theta = 0$ to $\theta = 180^\circ$.
Find from your figure the approximate values of θ in which $\sin \theta + \cos \theta = 1.2$.
15. 2. If A and B are each less than 45° , prove geometrically that $\cos A + \cos B = 2 \cos \frac{1}{2}(A+B) \cos \frac{1}{2}(A-B)$.
Prove that $\cos A + \cos(A+120^\circ) + \cos(A+240^\circ) = 0$.
15. 3. Write down the expression for $\cos A$ in terms of the sides of the triangle ABC , and deduce the expression for $\sin \frac{A}{2}$.
If $a = 8, b = 9, c = 10$,
find all the angles of the triangle to the nearest minute with the help of the table of logarithms.
15. 4. From a point A in a straight road AB two objects, P and Q , in a plane through AB are observed, such that $\angle PAB = 45^\circ 30', QAB = 27^\circ 10'$.
The observer now walks along the road in the direction of B , until he reaches a point C , whence P and Q appear in the same straight line. If AC be 125 yards, and $\angle PCA = 52^\circ 45'$,
find the length of PQ to the nearest yard by the help of the tables.

Answer TWO questions out of the following five.

15. 5. Find three values of $\cos A$ which satisfy the equation $3 \sin A \sin 2A + \cos 2A = 1$
Having given that A is an acute angle, use the corresponding value of $\cos A$ to construct the angle, and measure the angle to the nearest degree.
Verify your result by means of the table.

15. 6. Show that in every triangle ABC

$$(1) \frac{a}{\sin A} = \frac{b}{\sin B} = \frac{c}{\sin C} = 2R,$$

where R is the radius of the circumscribing circle ;

$$(2) \cos A = \frac{b^2 + c^2 - a^2}{\sin 2bc}.$$

Hence prove that

$$\frac{a^2 (b^2 + c^2 - a^2)}{\sin 2A} = \frac{b^2 (c^2 + a^2 - b^2)}{\sin 2B} = \frac{c^2 (a^2 + b^2 - c^2)}{\sin 2C}$$

15. 7. If in the triangle ABC

$$c = 74, \quad b = 56, \quad B = 35^\circ 15',$$

find both values of A and the smaller value of a with the help of the tables.

15. 8. The side of a regular 12-sided polygon inscribed in a circle is one inch in length ; employ any method you choose to find the radius of the circle to two decimal places.
15. 9. Find (1) the cosine of the angle between the side and the diagonal of a cube, (2) the cosine of the angle between two faces of a regular tetrahedron.

ALGEBRA.

HONOURS GRADE.

Wednesday, 21st June.—11 A.M. to 12.30 P.M.

All the work must be shown, and such explanation added as is required to indicate the methods adopted.

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.

10. Additional marks will be given for neatness, arrangement, and style. Candidates may answer six questions only, namely, Nos. 1, 2, 3, and one of the alternatives in each of Nos. 4, 5, 6.
15. 1. If n be a whole number, such that both $3n + 1$ and $7n + 1$ are square numbers, prove that n must be a multiple of 5.
15. 2. Explain the meaning of mathematical induction.

Prove by induction, or otherwise, that

$$1 + n + \frac{n(n+1)}{1 \cdot 2} + \frac{n(n+1)(n+2)}{1 \cdot 2 \cdot 3} + \dots + \frac{n(n+1) \dots (n+r-1)}{1 \cdot 2 \dots r} \\ = \frac{(n+1)(n+2) \dots (n+r)}{1 \cdot 2 \dots r}.$$

15. 3. Prove the Binomial Theorem for a positive integral index.

If $(1+x)^n = 1 + a_1x + a_2x^2 + \dots + a_nx^n$,
 and $(1+x)^{n+1} = 1 + b_1x + b_2x^2 + \dots + b_nx^n + b_{n+1}x^{n+1}$,
 prove that $b_r = a_r + a_{r-1}$,
 and that $a_r = b_r - b_{r-1} + b_{r-2} - \dots + (-1)^r$.

Alternative Questions.

15. 4a. Solve the equations

$$(1) \begin{cases} \frac{1}{x} + \frac{1}{y} + \frac{1}{z} = a + b + c, \\ \frac{1}{a} \left(\frac{1}{y} + \frac{1}{z} \right) = \frac{1}{b} \left(\frac{1}{z} + \frac{1}{x} \right) = \frac{1}{c} \left(\frac{1}{x} + \frac{1}{y} \right); \end{cases}$$

$$(2) \begin{cases} x^2 + xy + y^2 = 111, \\ x^2 - 2y^2 = 98; \end{cases}$$

$$(3) \frac{x^2 + 3ax^2 + 2a^2x + 5a^3}{x^2 + 6ax^2 + 4a^2x + 2a^3} = \frac{x^3 - 3ax^2 - 2a^3x + 5a^3}{x^3 - 6ax^2 - 4a^2x + 2a^3}$$

Or,

15. 4b. (1) If

$$\begin{aligned} x &= by + cz, \\ y &= cz + ax, \\ z &= ax + by \end{aligned}$$

prove that

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

(2) Prove that $m^{2n+1} + (m-1)^{2n+2}$ is a multiple of $m^2 - m + 1$.

15. 5a. If $f(x)$ be a rational integral function of x , which vanishes when $x = a + bi$, where $i^2 + 1 = 0$, prove that $f(x)$ also vanishes where $x = a - bi$.

Find all the linear factors of $x^4 - 5x^2 - 4x + 30$, having given that $x - 2 - i$ is one factor.

Or,

15. 5b. State the form of the expression to which a rational proper fraction

$$\frac{f(x)}{(x+a)(x+b)^m(x^2+cx+d)^n}$$

must be equated in order to bring it to a sum of partial fractions.

Express

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

as a sum of partial fractions.

15.

6a. Explain what is meant by a recurring series.

Find the scale of relation, the sum of n terms, and, where possible, the sum to infinity of the series

$$1 + 2x + x^2 - 4x^3 - \dots$$

Sum the series

$$1 \cdot 2 \cdot 3 + 2 \cdot 3 \cdot 4 + \dots + n(n+1)(n+2).$$

Or,

15.

6b. Draw in one figure the graphs

$$y = x - 2,$$

$$y = \frac{(2x - 1)(x - 1)}{2x + 1},$$

and show that they cannot have a common point at a finite distance from the origin.

Find another straight line in your diagram which cannot cut the second graph at a finite distance from the origin.

GEOMETRY.

HONOURS GRADE.

Wednesday, 21st June.—2 P.M. to 4 P.M

All ordinary symbols and contractions are allowed.

A the steps of the proofs must be given, and in all cases it should be clearly shown on what assumptions the demonstrations are based.

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.

10. Additional marks will be given for neatness, good style, and accurately drawn figures.

Candidates may answer six questions only, namely, Nos. 1, 2, 3, and one of the alternatives in each of Nos. 4, 5, 6.

15. 1. If from any point in the plane ABC perpendiculars be drawn to BC, CA, AB , meeting them in L, M, N respectively, prove that $EL^2 + CM^2 + AN^2 = CL^2 + AM^2 + BN^2$.

Enunciate and prove the converse proposition.

If the escribed circles of a triangle touch the sides (not produced) in the points D, E, F , prove that the perpendiculars drawn to the sides at these points are concurrent.

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15. 2. Define the radical axis of two circles. Prove that the three radical axes of three circles taken together meet in a point.
From a given point O a straight line is drawn to a variable point P on a fixed circle ABC ; on OP as diameter a circle is described; if the tangent to this circle at O meet the radical axis of the two circles at Q , find the locus of Q .
15. 3. OA, OB, OC are adjacent edges of a rectangular block of which OD is a diagonal, prove that $\dot{O}D$ passes through the centroid of ABC . Calculate the area of the triangle ABC in terms of OA, OB, OC (x, y, z).

Alternative Questions.

15. 4a. Enunciate and prove Menelaus' theorem.
(L, L'), (M, M'), (N, N') are pairs of points on BC, CA, AB such that $LB = CL', MC = AM', NA = BN'$; if L, M, N lie in a straight line, prove that L', M', N' also lie in a straight line.

Or

15. 4b. Prove that if a straight line be divided into two parts, the rectangle contained by the two parts is a maximum when the parts are equal.
 ABC is a triangle and P is a point in BC ; from P parallels PQ, PR are drawn to BA, CA , meeting AC, AB , in Q, E ; find the position of P which corresponds to the maximum area of the parallelogram $PQAR$.
15. 5a. If A, B be harmonic conjugates with respect to C, D , prove that C, D are harmonic conjugates with respect to A, B .
Prove that each diagonal of a complete quadrilateral is divided harmonically by the other diagonals.

Or

15. 5b. Prove that the inverse of a circle is either a straight line or a circle, according to the position of the centre of inversion.
Two unequal circles being given, find the locus of the centre of inversion in order that each circle may be inverted into a circle equal in area to the other circle.
15. 6a. Define pole and polar.
 A is a fixed point and O is a fixed circle, find two points B and C , such that the triangle ABC may be self-conjugate; that is, that each vertex may be the pole of the opposite side.
If PQR be a self-conjugate triangle, find the centre and radius of the circle with respect to which it is self-conjugate.

Or

15. 6b. ABC is a triangle, P is any point in AB , and a point Q is taken in AC such that $CQ = BP$; prove that the radical axis of the circles circumscribing the triangles ABC, APQ is a fixed line through A .

TRIGONOMETRY AND LOGARITHMS.

HONOURS GRADE.

Thursday, 22nd June.—2 P.M. to 3.30 P.M.

All ordinary symbols and contractions are allowed.

All the steps of the proofs must be given.

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.

10. Additional marks will be given for neatness, good style, and accurately drawn figures.

Candidates may answer six questions only, namely, Nos. 1, 2, 3, and one of the alternatives in each of Nos. 4, 5, 6.

10. 1. Explain some method by which the height and distance of an inaccessible mountain top can be found, assuming that two places of observation of known positions and in the same vertical plane as the summit can be obtained.

If A, B, C, D be four points in a plane, and $AB = 8745$ feet, $\angle DAB = 36^\circ 10'$, $\angle DBA = 51^\circ 25'$, $\angle CAD = 58^\circ 40'$, $\angle ACD = 84^\circ 17'$, find CD by the help of the logarithmic tables.

20. 2. Draw the graphs

(1) $y = \sin 2x$, (2) $y = \sin x \cos 2x$, from $x = 0$ to $x = \pi$; using the values of sines and cosines given in the tables if you find it convenient to do so.

From your drawing find an approximate solution to the equation $\sin x = \tan 2x$.

Verify your solution by solving the equation in the ordinary way so as find $\cos x$, and then referring to the table of cosines.

15. 3. Find the limits between which x must lie in order that the equation

$$\sin \theta = \frac{x^2 + 4}{5x}$$

may give real values of θ .

When this condition is satisfied, find the limits between which these real values of θ must lie.

15.

Alternative Questions.

15. 4a. (1) If
- $\sin A = \sin^2 B$
- , prove that

$$4(\cos 2A - \cos 2B) = 1 - \cos 4B.$$

(2) Prove that

$$\frac{\sec \alpha + \sec \beta + \tan \alpha - \tan \beta}{\sec \alpha + \sec \beta - \tan \alpha + \tan \beta} = \tan \frac{1}{2}(\pi + 2\alpha) \cot \frac{1}{2}(\pi + 2\beta).$$

Or

15. 4b. Prove that

$$\sin^{-1}(\sin \theta \sqrt{2}) + \sin^{-1} \sqrt{\cos 2\theta} = \frac{\pi}{2}, \text{ all the angles being acute.}$$

(2) If

$$x = \cos \theta + \cos \phi, \quad y = \sin \theta + \sin \phi,$$

Prove that

$$\frac{1}{x} \cos \frac{1}{2}(\theta + \phi) = \frac{1}{y} \sin \frac{1}{2}(\theta + \phi) = \frac{2}{x^2 + y^2} \cos \frac{1}{2}(\theta - \phi).$$

15

- 5a. State De Moivre's theorem, and use it to prove that

$$\cos n\theta = \cos^n \theta \left\{ 1 - \frac{n(n-1)}{1 \cdot 2} \tan^2 \theta + \frac{n(n-1)(n-2)(n-3)}{1 \cdot 2 \cdot 3 \cdot 4} \tan^4 \theta - \dots \right\}$$

What is the corresponding expression for $\sin n\theta$?Use these expressions to find $\tan 6\theta$ in terms of $\tan \theta$ *Or*

15

- 5b. Obtain the expansion of
- $\cos \theta$
- in powers of
- θ
- , and write down the corresponding expansion of
- $\sin \theta$
- .

Use these expansions to prove that

$$\tan \theta = \theta + \frac{1}{3} \theta^3,$$

where θ is so small that powers higher than the fourth may be neglected, and hence find $\tan 10^\circ$ correct to 4 places.

15

- 6a. Find the area of a quadrilateral in terms of its sides and of the sum of two opposite angles.

From your result show that if the sides of a quadrilateral are given, its area is greatest when it can be inscribed in a circle.

Or,

15.

- 6b.
- A, B, C
- are 3 points in a straight line, such that
- $BC = 3AB$
- , and
- P
- is a point outside the line, such that
- $\angle PCB = 2\angle PBC$
- ;

prove that $PA = PC + \frac{1}{2}AC$.

ELEMENTS OF DYNAMICS.

ADDITIONAL MATHEMATICAL SUBJECT.

Tuesday, 27th June.—2 P.M. to 3.30 P.M.

9. *All the steps of the proofs must be given, and the work of the calculations should be shown in full. Additional marks will be given for neatness, good style, and accurately drawn figures.*

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.

13. 1. Define Velocity and Relative Velocity.

A steamer sails in an hour from A to B , a distance of 12 miles. It is found that, in order to do so, the engine must work at a rate which would give a velocity of 13 miles an hour in still water, and that this is due to a current at right angles to AB . Find the velocity of the current and the tangent of the angle which the ship's velocity relative to the water makes with the line AB .

13. 2. Explain what is meant by uniform acceleration in the case of a body moving in a straight line.

A railway train starts from rest with an acceleration of 3 miles an hour per minute and keeps up this acceleration for 10 minutes. What speed in miles per hour has it at the end of the 10 minutes, and how many miles does it travel during the 10 minutes?

13. 3. A particle is projected upwards with a velocity of 144 feet per second. Show that its position at the end of the 4th second is the same as its position at the end of the 5th second. ($g=32$.)

Show also that its velocities at those instants are equal in magnitude, but opposite in direction.

13. 4. Enunciate the Parallelogram of Forces, and describe any experiment for verifying it.

A chain supports a ring to which are attached 2 chains (whose weight may be disregarded), each 17 feet in length and terminating in a hook. If a beam, 30 feet in length and 16 cwt. in weight, have the two hooks fastened to its ends so that it is suspended in a horizontal position, find the tension of each chain.

13. 5. Find the centre of gravity of a triangular lamina.

O is the centre of a square $ABCD$, each side of which is one foot long. If the triangle OAB be removed, find the centre of gravity of the remainder.

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13. 6. What is meant by the pressure at a point in a fluid? Prove that it is equal in all directions.

Find correct to one decimal place the pressure in pounds per square foot at a depth of 45 feet in water, assuming that the pressure of the atmosphere on the surface of the water is 14 lbs. on the square inch, and that a cubic foot of water weighs $62\frac{1}{2}$ lbs.

13. 7. Why do some bodies float in water while others sink?

Two bodies *A* and *B* weigh 4 and 5 lbs. respectively. When *A* is suspended in water by a string the tension of the string is 3 lbs. When *A* and *B* are tied together and suspended in water, the tension is 2 lbs. Find the specific gravities of *A* and *B*.

HIGHER DYNAMICS.

ADDITIONAL MATHEMATICAL SUBJECT.

(Honours.)

Tuesday, 27th, June—2 P.M. 3.30 P.M.

All the steps of the proofs must be given, and the work of the calculations should be shewn in full.

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.

10. Additional marks will be given for neatness, good style, and accurately drawn figures.

Candidates may answer six questions only, namely, Nos. 1, 2, 3, and one of the alternatives in each of Nos. 4, 5, 6.

10. 1. Define the velocity and the acceleration of a moving point.

The velocity of a point changes from 20 miles per hour northwards to 40 miles per hour eastwards in 5 minutes under acceleration constant in magnitude and direction. Express the magnitude of the acceleration in foot-second units correct to two decimal places, and indicate its direction by a diagram.

15. 2. Find the condition that three forces acting on a rigid body may be in equilibrium.

A uniform heavy rod is suspended by two thin strings attached to the ends. If the directions of the strings form a right angle with each other, prove that each string bisects the angle which the rod makes with a vertical line through its extremity.

20. 3. Define work and explain the meaning of foot-pound and horse power

A heavy express train has a mass of 400 tons. If the resistance to be overcome on the level be 10 pounds per ton, and the maximum speed with which the engine can draw the train on the level be 75 miles an hour, what is the horse-power of the engine.

Find also the greatest rate at which the engine can draw the train up an incline of one in a hundred.

Alternative Questions.

15. 4a. A system of n heavy moveable pulleys, in which each pulley is supported by a string, one end of which is fastened to a fixed beam and the other to the next pulley, supports a weight W , the last string passing round a fixed pulley and the applied force P acting downwards. If w be the weight of each movable pulley, find the relation between P , W , and w .

Show that the resultant force acting on the beam is

$$(2^n + 1)P - (2^n - n - 1)w.$$

Or

15. 4b. Find the centre of mass of a plane triangle.
ABCD is a quadrilateral whose diagonals meet in O ; P is the mid point of BD , and Q is the mid point of AC ; if the parallelogram $POQR$ be completed, prove that the centre of mass of triangle PQR is also the centre of mass of $ABCD$.

15. 5a. Define the centre of pressure of a plane area exposed to fluid pressure.

Prove that the centre of pressure of an area inclined to the vertical and immersed in a homogeneous liquid is vertically below the centre of mass of the volume enclosed by the area, the surface of the liquid, and vertical lines drawn through the perimeter of the area.

Find the centre of pressure of a triangle one of whose sides is in the surface of a homogeneous liquid, and whose third vertex is sunk beneath that surface.

Or

15. 5b. Describe the construction and use of the mercurial barometer.

When the true barometric height is 29.6 inches, that given by a barometer which contains some air is 29.3 inches. If the space above the mercury be 1.4 cubic inches, find correct to 3 decimal places how many cubic inches the air in it would occupy at the atmospheric pressure.

15. 6a. Find the time of descent of a heavy particle on a smooth inclined plane.

From a fixed point A , particles are allowed to slide down smooth rods AB , AC , AD , to a horizontal plane, prove that the times of descent are proportional to the lengths of the rods.

Or

- 6b. Prove that the path of a projectile *in vacuo* is a parabola.

If a projectile leave a given point with a given velocity, find the locus of the focus of the parabola which it describes

GEOMETRICAL CONICS.

ADDITIONAL MATHEMATICAL SUBJECT.

(Higher Grade and Honours.)

Tuesday, 27th June.—4 P.M. to 5.30 P.M.

All ordinary symbols and contractions are allowed.

All the steps of the proofs must be given. Preference will be given to proofs which depend on first principles, and in all cases it should be clearly shown on what assumptions the demonstrations are based.

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.

10. Additional marks will be given for neatness, good style, and accurately drawn figures.
15. 1. Prove that the tangent to a parabola at P bisects the angle between SP and the diameter through P , S being the focus.
 O is the centre of the inscribed circle of an equilateral triangle ABC ; prove that a parabola passing through B and C , with O as its focus, has AB , AC as tangents.
15. 2. If TP , TQ be tangents to a parabola prove that the angles TSP , TSQ are equal.
 If M be the foot of the perpendicular from P to the directrix, and K , L be any two points on TP , prove that the angles KSL , KML are equal.
15. 3. PQ is a chord of a parabola, and PM , QN are perpendiculars drawn to the directrix MN ; prove that a straight line drawn through the focus at right angles to PQ bisects MN .
 Hence, or otherwise, show that the mid points of all parallel chords of a parabola lie on a straight line parallel to the axis.
15. 4. Define an ellipse by its focus and directrix properly, and deduce that an ellipse has two foci and two directrices.
 Prove that in the ellipse $CA^2 = CS \cdot CX$.
15. 5. Prove that in any conic if the normal at P meet the axis at G , the ratio SG to SP is constant for all positions of P .
 If a straight line through P parallel to the axis meet the directrices in M and N , prove that the angles PSM , PHN are supplementary, where S , H are the foci.
15. 6. If A , B , C be three given points, prove that two conics can be drawn through C which have A and B as foci, and that these conics intersect at right angles.
 If A , B be two given points and DE a given straight line, prove that only one conic can be drawn having A , B as foci and DE as a tangent, and show how to determine whether the conic is an ellipse or a hyperbola.

ANALYTICAL GEOMETRY.

ADDITIONAL MATHEMATICAL SUBJECT.

(Higher Grade and Honours.)

Tuesday, 27th June.—12 Noon to 1.30 P.M.

10. All the steps of the proofs must be given. Additional marks will be given for neatness, good style, and accurately drawn figures.

The co-ordinate axes may be assumed to be rectangular.

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.

15. 1. Find an expression for the distance between the points (x_1, y_1) , (x_2, y_2) . Employ your result to find the co-ordinates of the centre of a circle, which passes through the points (9, 3), (8, 6), and has a radius of 5 units.

15. 2. Prove geometrically that $y = mx + c$ represents a straight line. Investigate the meaning of the constants in the equations

$$\frac{x}{a} + \frac{y}{b} = 1,$$

$$x \cos a + y \sin a = p.$$

15. 3. Find the equation of the straight line OP which passes through the origin and also through P the point of intersection of the lines $3x - y = 2$, $4y - 2x = 3$.

Write down the equation of the straight line through the origin at right angles to OP and find the co-ordinates of the points in which it intersects the given lines.

15. 4. Prove that $x^2 + y^2 + ax + by + c = 0$ represents a circle. Find the equations of the common chords (or radical axes) of the three circles

$$x^2 + y^2 + 4x + 6y + 4 = 0,$$

$$x^2 + y^2 - 4x - 4y - 1 = 0,$$

$$x^2 + y^2 + 6x - 4y - 3 = 0,$$

and prove that they are concurrent.

15. 5. Investigate the condition that the circles $x^2 + y^2 + 2ax + 2by = c^2$, $x^2 + y^2 + 2px + 2qy = r^2$ cut each other at right angles.

15. 6. Obtain the condition that the straight line $y = mx$ may meet the circle $x^2 + y^2 + 2ax + 2by + c^2 = 0$ in two coincident points. Form the equations to the circles which touch both axes and pass through the point (4, 2).

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1011

BOOK-KEEPING.

Friday, 23rd June.—2 P.M. to 4.30 P.M.

25.

Marks are given for writing, ruling and style.

90.

1. On 1st March, 1905, Wylie Brothers' Balance Sheet showed the following balances:—

	£	s.	d.	£	s.	d.	
Cash - - - - -		5	12	3			
Bank - - - - -		74	7	9			
Tea - - - - -		890	0	0			
Coffee - - - - -		530	0	0			
John Wylie—Capital Account -					1,000	0	0
Robert Wylie— Do. - - -					500	0	0
	<u>£1,500</u>	<u>0</u>	<u>0</u>		<u>1,500</u>	<u>0</u>	<u>0</u>

The following were their transactions:—

	1905.		£	s.	d.
March	2.	Sold to Robinson & Sons:—			
		Tea invoiced at - - - - -	426	8	0
		Coffee do. - - - - -	135	7	0
	5.	Cash drawn from Bank - - - - -	20	0	0
	15.	Purchased from Lindsay and Law:—			
		Tea invoiced at - - - - -	692	0	0
		Coffee do. - - - - -	273	10	0
	23.	Received from Robertson & Sons and lodged in Bank	533	13	3
		Discount allowed to them - - - - -	28	1	9
April	15.	Purchased Coffee for cash - - - - -	17	6	6
	20.	Sold to R. Simpson:—			
		Tea invoiced at - - - - -	54	5	6
		Coffee do. - - - - -	25	14	6
	27.	Received R. Simpson's acceptance at 3 m/d. for	80	0	0
	28.	Discounted same and lodged proceeds in Bank -	78	15	0
May	7.	Sold Tea for cash - - - - -	10	16	8
	15.	Paid Lindsay & Law (by cheque) - - - - -	917	4	6
		Discount allowed by them - - - - -	48	5	6
	24.	Purchased from Lindsay & Law:—			
		Tea invoiced at - - - - -	325	0	0
		Coffee do. - - - - -	110	0	0
		Accepted Lindsay & Law's bill at 2 m/d. for -	200	0	0
	30.	Paid salaries and wages (by cheque) - - - - -	82	10	0
	31.	Paid Trade Charges (by cheque) - - - - -	25	0	0
		" " (in cash) - - - - -	1	3	9
		" " Paid rent of premises for quarter to date (by cheque)	25	0	0

Stocks on hand at 31st May, 1905:—

	£	s.	d.
Tea valued at - - - - -	1,689	0	0
Coffee valued at - - - - -	796	10	0

Record the opening entries and the transactions in:—

Cash Book;
 Invoice (or Goods bought) Book;
 Day (or Goods Sold) Book;
 Journal.

Post from these to a Ledger.

Frame Profit and Loss Account for the quarter ending 31st May, 1905, and a Balance Sheet as at 31st May, 1905. The profit or loss is divisible, two-thirds to John Wylie and one-third to Robert Wylie.

Only entries not suitable for the other books are to be entered in the Journal.

The Ledger Accounts must all be closed and ruled off.

- 35 2. Frame the entries, with short explanatory narratives, required to record the following in Jones & Co.'s Journal.

		£	s.	d.
February 2.	Received from Gray & Sons account sales, for goods previously consigned to them, giving the following particulars :—			
	Goods realised - - -		360	0 0
	Less: Expenses - - -	£ 9	10	0
	Commission - - -	18	0	0
		£332	10	0
" 10.	To correct the following error discovered by the book-keeper to-day, that on 25th January last he had debited the sum of £30 to Trade Charges Account, whereas that sum had been drawn by John Jones, one of the partners, for private expenditure.			
June 1.	Received James Brown's acceptance at 1 m/d. for £100 to settle debt of that amount due by him.			
July 4.	James Brown failed to meet his acceptance.			
" 5.	Received from him new acceptance at 3 m/d. for £101 10s. in exchange for his former acceptance and for 3 months' interest.			
October 7.	James Brown became bankrupt, and his estate was estimated to yield 10s. per £. Wrote off one-half of his debt.			

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101?

COMMERCIAL ARITHMETIC.—FIRST PAPER.

Tuesday, 27th June.—9.30 A.M. to 10 A.M.

This paper will be taken up at the end of *half-an-hour*, when the other paper will be given out.

The sums are not to be copied out, and all the calculations required are to be performed mentally.

More importance will be attached to accuracy than to quickness.

Fill this in first { *Name of School* _____
 Name of Pupil _____

12. 1. Add the following columns :—

£	s.	d.	yards	ft.	in.	tons	cwts.	qrs.	lbs.	oz.
427	3	10	31	2	11	14	10	1	11	6
78	11	$6\frac{1}{2}$	16	1	4	5	3	3	4	13
813	10	11	9	2	10	2	14	2	9	12
174	9	$8\frac{1}{4}$	23	1	5	7	18	1	25	4
365	14	11	10	1	9	3	9	2	16	14
26	19	$11\frac{3}{4}$	7	2	4	5	14	3	20	6
856	7	3	16	1	8	16	11	2	13	12
247	15	$7\frac{1}{2}$	8	0	6	5	3	0	7	10
139	8	$4\frac{1}{4}$	14	2	2	2	10	2	14	5

8. 2. Write down the values of—

- $8\frac{3}{4}$ per cent. of £2,500 - - - - -
- $3\frac{5}{8}$ per cent. of £7,000 - - - - -
- 4 per cent. of £76 5s. - - - - -
- 144 times $6\frac{3}{4}d.$ - - - - -
- 365 times 2s. 4d. - - - - -
- $\cdot 0048 \times \cdot 0125$ - - - - -
- $4\cdot 78365 - \cdot 08366$ - - - - -
- 51629×55 - - - - -

3. 3. Express as a decimal of £1 corrected to the nearest figure in the third decimal place—

- £4 17s. $8\frac{1}{2}d.$ - - - - -
- £1 9s. $11\frac{1}{2}d.$ - - - - -
- £3 14s. 7d. - - - - -

2. 4. Express in £ s. d. to the nearest farthing—

- £2·716 - - - - -
- £4·325 - - - - -

COMMERCIAL ARITHMETIC.

Second Paper.

Tuesday, 27th June.—10 A.M. to 11.30 A.M.

All the working must be shown in its proper position in the answer, and the different steps of the calculation should be shortly indicated in words.

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.

7. Marks are given for neatness, arrangement, and style.
Algebraical symbols may be used if properly explained.
A table of four-place logarithms is provided.
6. 1. A grocer mixes teas worth 1s. 4d. 1s. 6d. 1s. 8d. per lb. in the proportion of 5, 4, and 3; find at what price per lb. he must sell the mixture so that he may make at least 25 per cent., taking the lowest exact number of pence which will allow this profit.
6. 2. If a cubic decimetre of water weigh a kilogramme, find the weight of water in grammes contained in a tank one metre long, 46.5 centimetres broad, and 23.5 centimetres deep.
8. 3. An English merchant buying French ribbon calculates that, for every 20 centimes per metre in the French price, the English price should be 21 pence per dozen yards. Adopting this rule, find the price per yard in English money to the nearest farthing corresponding to (1) 60 centimes per metre, (2) 2 francs 60 centimes per metre, (3) 1 franc 15 centimes per metre.
8. 4. Find the cost of the paper required for papering a room whose length, breadth, and height are respectively 19 feet, 16 feet and 11 feet, with paper 21 inches wide at 2s. 4d. per piece of 12 yards, allowing 80 square feet for doors, windows, wastage, &c.
14. 5. Explain what is meant by the present worth of a sum of money due at some future date.
Find to the nearest pound the present worth of £1000 due 3 years hence, if money be valued at $4\frac{1}{2}$ per cent. compound interest payable annually.
12. 6. A Danish 10-kroner piece weighs 4.48 grammes, of which $\frac{9}{10}$ is pure gold. If 1869 sovereigns be coined from 480 ounces of which $\frac{1}{2}$ is pure gold, and if three ounces be equal to 93.31 grammes, find to 2 decimal places the value of a sovereign in kroner, the metal with which the gold is combined being of no value in both cases.
14. 7. If the rate of exchange between London and Paris be 25.20 francs for £1, that between London and Berlin 20.50 marks for £1, and that between Berlin and Paris 81 marks for 100 francs, find how much a merchant would have to pay in order to remit 10,000 francs to Paris (1) directly, (2) *via* Berlin

