LEAVING CERTIFICATE EXAMINATION, 1907.

EXAMINATION PAPERS.

ENGLISH.

Lower Grade.

Thursday, 20th June.—10 A.M. to 12.30 P.M.

All Candidates should attempt *seven* questions (and no more).

Section I.

VALUE.

[Five Questions to be answered, viz. Question 1, Question 2, and one or other of the alternatives given in Questions 3, 4 and 5.]

10.   1. Write out, and punctuate, the passage for dictation.

18.   2. Write a short essay of about two pages on *any one* of these subjects :—

    (*a*) Diary of a real (or imaginary) bicycling tour in the Highlands.

    (*b*) Sir Walter Scott possessed a gun that had belonged to Rob Roy, and a sword that had belonged to the Marquis of Montrose. Imagine a dialogue between these weapons.

    (*c*) Describe any *one* of the following great battles :—Thermopylae, The Thrasymene Lake, Hastings, Flodden, Trafalgar, Sedan.

15.   3. Answer *one* of the two following questions :—

    (i) Wordsworth wrote the following sonnet in the pass of Killie-crankie, at a time (October, 1803) when an invasion of Britain by Napoleon was expected. (*a*) Give Wordsworth's meaning as plainly and briefly as you can. (*b*) Explain the allusions in those phrases which are printed in italics. (*c*) Name the metre and point out the arrangement of the rhymes. (*d*) Re-write the last seven lines (from "'Twas a day of shame") in prose form, making as few verbal changes as possible.

> *Six thousand veterans* practised in war's game,
> Tried men, at Killiecrankie were arrayed
> Against an equal host that wore the plaid,
> *Shepherds and herdsmen.*—Like a whirlwind came
> The Highlanders : the slaughter spread like flame ;
> And *Garry, thundering down his mountain road,*
> Was stopped, and could not breathe beneath the load
> Of the dead bodies.—'Twas a day of shame
> For them whom precept and the pedantry
> Of cold mechanic battle do enslave.
> Oh, for a single hour of that *Dundee,*
> Who on that day the word of onset gave !
> Like conquest would the men of England see ;
> And her foes find a like inglorious grave.

    (ii) Build up the following statements into a connected composition. Arrange the sentences in what you think the best order, avoiding needless repetitions ; supply connecting words where they are required, and invent a suitable title for the whole.

"Britain is one of the great powers of the world—great in industry and commerce—her industrial supremacy threatened by Germany and the United States— English language wide-spread—colonies a source of strength—rise of new powers (*e.g.,* Japan)—colonies numerous—risk of population crowding into towns—colonies favourably situated—certain elements of danger —competition for trade growing keener—yeomen class dwindling—Britain no longer the workshop of the world—her people highly civilized—other great empires have risen and fallen—the

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prosperity of a country depends chiefly on the energy and patriotism of its citizens and their power of adapting themselves to new conditions—the future of the British Empire is an interesting speculation.'"

12. 4. *Either* (i) Correct the faults of the vocabulary in the following passage ; give the true meaning of the words which you reject, adding the derivation where you can :—

" Observe me, Sir Anthony. I would by no means wish a daughter of mine to be a progeny of learning. She should have a supercilious knowledge of accounts ; and as she grew up, I would have her instructed in geometry, that she might know something of the contagious countries ; but above all, she should be mistress of orthodoxy, that she might not mis-spell and mis-pronounce words so shamefully as girls usually do ; and likewise that she might reprehend the true meaning of what she is saying. This is what I would have a woman know ; and I don't think there is a superstitious article in it."

Or (ii) Rewrite the following sentences in good English, explaining precisely what is wrong in each :—

(1) When out at sea in a vessel the horizon is always circular.

(2) The Nabob rose in rebellion, but Clive stepped into the breach.

(3) We are all acquainted with men whom we feel sure would refuse this office.

(4) The many friends of Dr. S. will be glad to hear that, whilst he has somewhat recovered from his illness, he is still not allowed to take part in any work, and remains confined to his house.

(5) Respectful Madam,—We have pleasure in forwarding your watch by this evening's post, which is now going satisfactory.

(6) The teaching of Carlyle apparently greatly influenced him ; it certainly did his father.

15. 5. *Either* (i) Relate in your own words the most striking incident in any book that you have recently read in school, giving particulars as to the scene, the times and the characters.

Or (ii) Mention any passages of poetry which have particularly impressed you by the beauty of their imagery, language or rhythm (giving the author's name and the title of the poem) ; quote any lines that you especially admire, and say on what grounds you admire them.

Section II.

HISTORY.

*[*One *question to be answered.]*

15. 1. Compare the constitution and powers of the English and Scottish Parliaments up to their union in 1707.

15. 2. Select any *two* of the following themes, and write a *single paragraph* on each, noting particularly the later effects of the events which you mention :—

The Romans in Scotland ; the mission of Augustine ; Strongbow in Ireland ; the Reign of Malcolm Canmore ; the Black Death ; Harlaw ; Sea-routes to India ; the Wars of Religion and their effect on Britain ; Charles I.'s treatment of Scotland ; the Navigation Acts ; the Treaty of Utrecht ; the effect of the Forty-five upon the Highlands ; the Letters of Junius ; the Berlin Decrees ; the Congress of Vienna ; effects of the Industrial Revolution in Scotland ; Popular Education in the 19th Century ; the British in Egypt.

15.   3. Describe the social condition of England *or* of Scotland at any period
prior to 1800. Select the period which you know best, and mention any
books that have helped you to picture it clearly.

SECTION III.

GEOGRAPHY.

[ONE *question to be answered.*]

15.   1. The following table gives the latitude and the mean annual tempera-
ture of various places in North America and Europe. Locate the towns
where the country is not already given, and tell what inferences you draw
from the table as to the comparative warmth (1) of the east and west coasts
of the North Atlantic ; (2) of places in Europe in the same latitude but at
various distances from the North Atlantic. How are these differences
accounted for ?

Place.	Latitude, North.	Mean Annual Temperature.
Nain (Labrador) - - - -	57·2°	25·2°
Aberdeen - - - -	57·2	46·8
Valentia (Ireland) - - -	52	50·2
Oxford - - - - -	52	48·9
Warsaw - - - - - -	52	45·1
Orenburg - - - - -	52	37·9
Brest - - - - - -	48·4	53·6
St. John's - - - - -	47·6	40·1
Bordeaux - - - - -	44·8	55
Halifax (N.S.) - - - -	44·7	43·3
New York - - - - -	40·8	51·1
Naples - - - - -	40·8	61·7

15.   2. Contrast the East and West of Scotland in respect of configuration,
climate and natural resourses.

15.   3. Make a sketch map of England and the South of Scotland as far as to
the Forth. On this map mark the mountain ranges (or groups), and the
great railway lines from London to Edinburgh and Glasgow. What causes
have determined the courses of these lines ?

15.   4. What geographical or historical reasons help to account for the
greatness of any *four* of the following cities :—Glasgow, Liverpool, Berlin,
Constantinople, Alexandria, Bombay, Chicago, Montreal, Rio de Janeiro ?

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ENGLISH.

LOWER GRADE.

Thursday, 20th June.—10.45 A.M.

Passage for Dictation.

The great chieftains of Ulster, who, at the time of James's accession, had
submitted to the royal authority, had not long brooked the humiliation of
dependence. They had conspired against the English Government, and
had been found guilty of treason. Their immense domains had been for-
feited to the Crown, and had soon been peopled by thousands of English
and Scotch emigrants. On a sudden the aboriginal population rose on the
colonists. A war, to which national and theological hatred gave a character
of peculiar ferocity, desolated Ulster, and spread to the neighbouring prov-
inces. Every post brought to London exaggerated accounts of outrages
which, without any exaggeration, were sufficient to move pity and horror.
These evil tidings roused to the height the zeal of both the great parties
which were marshalled against each other at Westminster.

ENGLISH.

HIGHER GRADE AND FIRST PAPER FOR HONOURS.

Thursday, 20th June—10 A.M. to 1 P.M.

Higher Grade Candidates should attempt *seven* questions (and no more),— namely, the whole of Sub-section A., *one* question from Sub-section B., *two* from Sub-section C., *one* from Section II. and *one* from Section III.

Honours Candidates should attempt *eight* questions, two of which must be Questions 1 and 2. They are not required to answer questions from Sections II. and III., although they may do so. They can obtain the full number of marks in Section I.

SECTION I.

Sub-section A.

20.
(25.)*

1. Write an Essay, of about two pages, on any one of the following subjects :—
   - (*a*) The Union of the Parliaments of England and Scotland, in the form of a dialogue between an Englishman and a Scotchman of that period.
   - (*b*) Describe any great picture that you have seen.
   - (*c*) Army Reform.

15.

2. (*a*) Give the substance of the following paragraph in plain language.
   (*b*) Point out, and show the force of, the two great metaphors employed.

   "When his† face was hid but for a moment, his whole system was on a wide sea, without chart or compass. The gentlemen, his particular friends, who, with the names of various departments of ministry, were admitted to seem as if they acted a part under him, with a modesty that becomes all men, and with a confidence in him which was justified even in its extravagance by his superior abilities, had never, in any instance, presumed upon any opinions of their own. Deprived of his guiding influence, they were whirled about, the sport of every gust, and easily driven into any port ; and as those who joined with them in manning the vessel were the most directly opposite to his opinions, measures, and character, and far the most artful and powerful of the set, they easily prevailed, so as to seize upon the vacant, unoccupied, and derelict minds of his friends ; and instantly they turned the vessel wholly out of the course of his policy. As if it were to insult as well as to betray him, even long before the close of the first session of his administration, when everything was publicly transacted, and with great parade, in his name, they made an Act, declaring it highly just and expedient to raise a revenue in America. For even then, Sir, even before this splendid orb was entirely set, and while the western horizon was in a blaze with his descending glory, on the opposite quarter of the heavens arose another luminary‡, and, for his hour, became Lord of the ascendant."—BURKE, *Speech on American Taxation.*

Sub-section B.

10.

3. Write short notes on the derivation and original meaning of the following words, and show the propriety of their use in the above passage :— *Extravagance, influence, derelict, session, parade, expedient, orb, horizon, Lord, ascendant.*

10.

4. Write short notes on the syntax of the words in italics in the following sentences :—
   - (*a*) Heat *me* these irons *hot.*
   - (*b*)   You yourself
     Are much condemned *to have* an itching palm.
   - (*c*) *Were* this *to do* again, I'd do it.
   - (*d*) The green baize *was forming* into a curtain *by* the housemaids.

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* The Values printed in brackets are those assigned for Honours.
† Lord Chatham's.   ‡ Charles Townshend.

(e) Belial came last ; *than whom* a Spirit more lewd
    Fell not from Heaven.
(f)   Never, *since created man*,
    Met such embodied force.
(g) *'Twere* good you *do* so much for charity.

10. 5. Illustrate the various changes which Latin words have undergone in passing into English through French, and explain, where you can, the causes which have produced these changes.

Sub-section C.

15. 6. The three following extracts are translations of the same passage from
(10.)* Homer. Compare them carefully in respect of language, especially the use of descriptive adjectives ; say which of them you prefer and why ; name the metre in each case ; and tell roughly, if you can, to what period each translation belongs :—

    (a)   Fires round about them shined,
    As when about the silver moon, when air is free from wind,
    And stars shine clear, to whose sweet beams high prospects
        and the brows
    Of all steep hills and pinnacles thrust up themselves for shows,
    And even the lowly valleys joy to glitter in their sight,
    When the unmeasured firmament bursts to disclose her light,
    And all the signs in heaven are seen that glad the shepherd's
        heart.

    (b) And beaming fires illumin'd all the ground ;
    As when the moon, refulgent lamp of night !
    O'er heaven's pure azure spreads her sacred light,
    When not a breath disturbs the deep serene,
    And not a cloud o'ercasts the solemn scene ;
    Around her throne the vivid planets roll,
    And stars unnumber'd gild the glowing pole ;
    O'er the dark trees a yellower verdure shed,
    And tip with silver every mountain's head ;
    Then shine the vales, the rocks in prospect rise,
    A flood of glory bursts from all the skies ;
    The conscious swains, rejoicing in the sight,
    Eye the blue vault, and bless the useful light.

    (c)   Many a fire before them blazed :
    As when in heaven the stars about the moon
    Look beautiful, when all the winds are laid,
    And every height comes out, and jutting peak
    And valley, and the immeasurable heavens
    Break open to their highest, and all the stars
    Shine, and the Shepherd gladdens in his heart.

15 7. Assign each of the three following passages to its proper period, and
(10.)* (if you can) to its author, *giving reasons for your decision* ; name the metre, and explain any allusions :—

    (a) Sometime let gorgeous Tragedy
    In sceptred pall come sweeping by,
    Presenting Thebes, or Pelops' line,
    Or the tale of Troy divine,
    Or what (though rare) of later age
    Ennobled hath the buskined stage.

    (b) Nor second he,[†] that rode sublime
    Upon the seraph-wings of Ecstasy
    The secrets of th' abyss to spy.
        He passed the flaming bounds of place and time
    The living Throne, the sapphire-blaze,
    Where Angels tremble while they gaze,
    He saw ; but blasted with excess of light,
    Closed his eyes in endless night.

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* The Values printed in brackets are those assigned for Honours.
    † *i.e.*, not inferior to Shakespeare.

(c)   I taught thy manners-painting strains,
      The loves, the ways, of simple swains,
      Till now, o'er all my wide domains
            Thy fame extends ;
      And some, the pride of Coila's plains,
            Become thy friends.

      Thou canst not learn, nor can I show,
      To paint with Thomson's landscape glow ;
      Or wake the bosom-melting throe
            With Shenstone's art ;
      Or pour, with Gray, the moving flow
            Warm on the heart.

15.
(10.)*   8. Many of Shakespeare's plays contain one or more subordinate plots in addition to the main plot.   Illustrate, from any *one* play known to you, the function of these " sub-plots " in the structure of the play.

SECTION II.
HISTORY.

15.
(10.)*   1. Compare the constitution and powers of the English and Scottish Parliaments up to their union in 1707.

15.
(10.)*   2. Select any *two* of the following themes, and write *a single paragraph* on each, noting particularly the later effects of the events which you mention :—

>   The Romans in Scotland ; the mission of Augustine ; Strongbow in Ireland ; the Reign of Malcolm Canmore ; the Black Death ; Harlaw ; Sea-routes to India ; the Wars of Religion and their effect on Britain ; Charles I.'s treatment of Scotland ; the Navigation Acts ; the Treaty of Utrecht ; the effects of the Forty-five upon the Highlands ; the Letters of Junius ; the Berlin Decrees ; the Congress of Vienna ; effects of the Industrial Revolution in Scotland ; Popular Education in the 19th Century ; the British in Egypt.

15.
(10.)*   3. Describe the social condition of England *or* of Scotland at any period prior to 1800.   Select the period which you know best, and mention any books that have helped you to picture it clearly.

SECTION III.
GEOGRAPHY.

10.   1. The following table gives the latitude and the mean annual temperature of various places in North America and Europe.   Locate the towns where the country is not already given, and tell what inferences you draw from the table as to the comparative warmth (1) of the east and west coasts of the North Atlantic ; (2) of places in Europe in the same latitude but at various distances from the North Atlantic.   How are these differences accounted for ?

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Halifax (N.S.) - - -	44·7	43·3
New York - - -	40·8	51·1
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* The Values printed in brackets are those assigned for Honours.

VALUE.

10.   2. Contrast the East and West of Scotland in respect of configuration, climate, and natural resources.

10.   3. Make a sketch map of England and the South of Scotland as far as to the Forth. On this map mark the mountain ranges (or groups), and the great railway lines from London to Edinburgh and Glasgow. What causes have determined the courses of these lines ?

10.   4. What geographical or historical reasons help to account for the greatness of any *four* of the following cities :—Glasgow, Liverpool, Berlin, Constantinople, Alexandria, Bombay, Chicago, Montreal, Rio de Janeiro ?

ENGLISH.

HONOURS.—Second Paper.

Wednesday, 26th June.—10 A.M. to 1 P.M.

About six *questions should be answered. Not more than* two *of these must be taken from Section II.*

Section I.

16.   1. Deduce the character and temperament of Chaucer and Langland from their writings.

16.   2. Indicate and discuss any passages in Spenser or in Shakespeare which illustrate the strength of patriotic feeling in Elizabethan England. Quote as largely as you can.

16.   3. Compare or contrast the characteristic features of the traditional Scottish and English ballads.

16.   4. Explain the phenomenon known as "Euphuism," and quote, or refer to, any Shakespearian passages which allude to it.

16.   5. How does Shakespeare deal with the supernatural in the play in which *Hamlet, or Macbeth, or the Tempest* ?

16.   6. "Each of Shakespeare's fools and clowns is native to the play in which he figures, and to no other." Test the truth of this dictum by supposing any two of these characters transposed.

16.   7. What literary associations have gathered round the following names :—Athens, Araby, Ardennes, Camelot, The Hebrides, The Hesperides, Provence, Roncesvalles, Yarrow ?

16.   8. Discuss Milton's use of similes, *or* the autobiographical references in his poems.

16.   9. Compare English prose style before and after the Restoration.

16.   10. Explain what is meant by the verisimilitude of Swift and Defoe, and give examples of it.

16.   11. Was Burns's attitude to external nature that of the eighteenth century or that of the Romantic Age ?

16.   12.   As a huge stone is sometimes seen to lie
Couched on the bald top of an eminence ;
Wonder to all that do the same espy,
By what means it could thither come and whence ;
So that it seems a thing endued with sense :
Like a sea-beast crawled forth, that on a shelf
Of rock or sand reposeth, there to sun itself ;
Such seemed this man, not all alive nor dead
Nor all asleep—in his extreme old age.   (*Wordsworth.*)

Criticise the language, construction and arrangement of this passage in the light of Wordsworth's own theory of poetic diction.

16.   13. Indicate by reference to our essay literature how the range of subjects treated in the essay grew more extensive.

16.   14. Show how the difference between Scottish and English humour may be illustrated from Scott and Dickens.

16   15. Give an account of the work of any living English novelist who seems to you to have reached supreme literary excellence.

16.   16. What romances in verse or prose are suggested to your mind by the following lines ?

> Morn, and a world of wonder ! O the time
>   Of winds like trumpet-calls, and seas that gleam,
> And sounding sunlit roads that wind and climb
>   Far over hills of dream,—
> Travelled by knight and pedlar, prince and priest,—
>   Past many an echoing port and ringing bridge
> To some black fortress like a couchant beast
>   Crouched on a mountain ridge.
> Fords perilous, and haunted reach and pool,
>   Far shining spires under the blaze of noon,
> And twilight shrines of visions wonderful,—
>   Dusk and an angry moon. (*C. Fox Smith.*)

Section II.

Optional Questions

16.   1. Translate :—

Dū mann, tō hwon eart ðū mē swā ungeðancfull mīnra giefena ? Hwæt ! ic ðē gesceōp and gelīfflæste, and æghwæt ðæs ðe ðū hæfst ic ðē sealde. Mīn is eall ðæt ðū hæfst, and ðīn nis nān wiht. Ic hit eall afierre fram ðē ; ðū leofa būtan mē, gif ðū mæge. Dē ic hic sealde, tō ðon ðæt ðū hit sceoldest ðearfum dǣlan. Ic swerie ðurh mē selfne ðæt ic eom se ilca God ðe ðone weligan and ðone hēanan geworhte mid mīnum handum. Dæt ic wolde, ðæt ðū mīne ðearfan fēddest, ðonne hīe wǣron ðē biddende mīnra gōda, and ðū him simle trōe forwierndest. For hwon noldest ðū hit geðencean, gif ðū him mildheortnesse on gecȳðdest, ðæt ðū ne sceoldest ðæs nān ðing forlēosan, ðe ðū him dydest, nē mē ðǣre selene ābelgan mīnes āgnes ?

16   2. Write down the present infinitive, preterite singular and plural (1st persons) and past participle (wherever these are in use) of the irregular and defective verbs in the above passage.

16.   3. Write brief notes on the grammar, diction, and metre of the following extracts :—

> (*a*) And if yow thinketh this is wel y-sayd,
>   Seyeth your avys and holdeth yow apayd,
> (*b*) Ful looth were him to cursen for his tythes.
> (*c*) To be buxome at his biddyng   . he bad hem noughte elles.
> (*d*) He garte the hevene to stekye   . and stonden in quiete.
> (*e*) Men sais schir thomas randale than,
>   Chassand, the kyngis baner wan.
> (*f*) In none kingeriche
>   Nas non his iliche.

16.   4. Name the dialects of Old English, illustrate some of their peculiarities from the passages quoted in the preceding question, and narrate briefly their subsequent history.

LATIN.

LOWER GRADE.

Monday, 24th June.—10 a.m. to 12.30 p.m.

30.   1. For Prose Composition :—

(*Candidates should in all cases attempt this Question.*)

I must now tell you how the Roman people gained possession of the Sibylline Books, which it was the custom to consult in times of great danger to the state. When Tarquin the Proud was reigning at Rome, there came to him one day a stranger woman, who would have him buy at a price nine books, in which she said were written the verses of the Sibyl ; and when he refused, she burnt three and offered the rest at the same price. But he mocked at her for a mad woman. And she came yet again with but three books left and asked the same price ; so the king was astonished, and took counsel with the augurs and bought the books, which he ordered to be kept in the Capitol.

20.   2. Translate :—

(*a*) Acie triplici instituta, et celeriter octo milium itinere confecto, prius ad hostium castra pervenit, quam quid ageretur Germani sentire possent. Qui omnibus rebus subito perterriti, et celeritate adventus nostri et discessu suorum, neque consilii habendi neque arma capiendi spatio dato perturbantur, copiasne adversus hostem ducere, an castra defendere, an fuga salutem petere praestaret. Quorum timor cum fremitu et concursu significaretur, milites nostri pristini diei perfidia incitati in castra inruperunt. Quo loco qui celeriter arma capere potuerunt paulisper nostris restiterunt atque inter impedimenta proelium commiserunt : at reliqua multitudo puerorum mulierumque (nam cum omnibus suis domo excesserant Rhenumque transierant) passim fugere coepit ; ad quos consectandos Caesar equitatum misit.

15.   (*b*) *Proserpine and her companions gather flowers.*

Valle sub umbrosa locus est aspergine multa
   uvidus ex alto desilientis aquae.
fulgebant illic quot habet natura colores
   pictaque dissimili flore nitebat humus.
quam simul aspexit, "Comites, accidite !" dixit
   "et mecum plenos flore referte sinus !"
praeda puellares animos prolectat inanis,
   et non sentitur sedulitate labor.
illa legit calthas [1] ; huic sunt violaria curae ;
   illa papavereas subsecat ungue comas ;
plurima lecta rosa est ; sunt et sine nomine flores ;
   ipsa crocos tenues liliaque alba legit.

35.   3. (*a*) In what metre is the preceding passage written ? Give the scansion of the first four lines, marking the quantity of each syllable and dividing the feet.

(*b*) Give (1) the meaning, (2) the gender, (3) the ablative singular, and (4) the genitive plural, of the following words :—*frigus, munus, mons, ignis, cinis* ; and give the principal parts of *cano, vinco, redeo, nanciscor, aufero.*

(*c*) What are the adverbs formed from the adjectives *malus, facilis, similis, acer* ? Give the comparative and superlative of those adverbs.

(*d*) Write and translate very short sentences to illustrate the constructions of *parco, impero, persuadeo.*

4. Translate into Latin :—

(*a*) Come here, boy, and tell me whose son you are.
(*b*) I told him I did not remember why I did that.
(*c*) If you tell me what you want, I shall do it if I can.
(*d*) There is no one who knows better than yourself what you ought to do.

5. What do you know of any one of the following :—Marius, Gaius Gracchus, Agricola, Nero ?

_____

[1] *caltha,* "marigold."

LATIN.

Higher Grade.

Monday, 24th 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 :—

In both camps all who did not understand war were eager to fight ; the few who had a high reputation for military science were against fighting. Each of the generals knew intimately the defects of his own army ; and neither of them was fully aware of the defects of the other's army. Rosen was certain that the Irish infantry were worse equipped, worse officered, and worse drilled, than any infantry he had ever seen ; and he supposed that the English troops were well trained, and were, as they doubtless ought to have been, amply provided with everything necessary to their efficiency. Numbers, he rightly judged, would avail little against a great superiority of arms and discipline. He therefore advised James to fall back rather than hazard a battle the loss of which might be the loss of all. But the Irish were unanimous against retreating, and James pleased with the enthusiasm of his subjects, positively declared that he would not disgrace himself by leaving his capital to the invaders without striking a blow.

25.   2. Translate into English :—

Aliquantum supererat noctis, iamque in tuto videbantur esse, cum Decius "macte virtute," inquit, "milites Romani, este : vestrum iter ac reditum omnia saecula laudibus ferent ; sed ad conspiciendam tantam virtutem luce ac die omnia opus est, nec vos digni estis quos cum tanta gloria in castra reduces silentium et nox tegat. hic lucem quieti opperiemur." dictis obtemperatum. Atque ubi primum inluxit, praemisso nuntio ad consulem in castra incolumes reverti qui sua corpora pro salute omnium haud dubio periculo obiecissent, pro se quisque obviam effusi laudant, gratulantur, singulos universos servatores suos vocant, dis laudes gratesque agunt, Decium in caelum ferunt. Hic Decii castrensis triumphus fuit incedentis per media castra cum armato praesidio, coniectis in eum omnium oculis, et omni honore tribunum consuli aequantibus.

15.   3. Translate into English *either* (*a*) or (*b*) :—

(*a*)   Iamque rubescebat radiis mare, et aethere ab alto
Aurora in roseis fulgebat lutea[1] bigis ;
cum venti posuere, omnisque repente resedit
flatus, et in lento luctantur marmore tonsae[2].
Atque hic Aeneas ingentem ex aequore lucum
prospicit. Hunc inter fluvio Tiberinus amoeno,
verticibus rapidis, et multa flavus harena,
in mare prorumpit ; variae circumque supraque
assuetae ripis volucres et fluminis alveo
aethera mulcebant cantu, lucoque volabant.
Flectere iter sociis terraeque advertere proras
imperat, et laetus fluvio succedit opaco.

(*b*)   Phoebus volentem proelia me loqui
Victas et urbes increpuit lyra,
    Ne parva Tyrrhenum per aequor
        Vela darem. Tua, Caesar, aetas
Fruges et agris rettulit uberes,
Et signa nostro restituit Iovi
    Derepta Parthorum superbis
        Postibus, et vacuum duellis
Ianum Quirini clausit, et ordinem
Rectum evaganti frena licentiae
    Iniecit, emovitque culpas,
        Et veteres revocavit artes,

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[1] *lutea* "rosy."   [2] *tonsae* "oars."

Per quas Latinum nomen et Italae
Crevere vires, famaque et imperi
Porrecta maiestas ad ortus
Solis ab Hesperio cubili.

30. 4. (a) Translate the following sentences and explain the syntax of the words in italics :—

(1) Dies *deficiat* si *velim* paupertatis causam defendere.

(2) C. Gracchus, si diutius *vixisset*, eloquentia nescio an habuisset parem *neminem*.

(3) In re publica mihi *neglegenti* esse non licet.

(4)   desine mollium
    tandem *querelarum*.

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

(1) Odi profanum vulgus et arceo.

(2) Sic te diva potens Cypri.

(3) Albi, ne doleas plus nimio memor.

5. Translate into Latin :—

(a) Who can deny that it is better to die for one's country than to be a coward ?

(b) If you tell any one what we have told you, we will never trust you any more.

(c) We must not spare the instigators of the war ; for it is to them we owe all our misfortunes.

(d) There is not one of us who knows whether the consul is dead or not.

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

(a) Show how *either* Sicily or Egypt came under Roman rule.

(b) What is meant by *ager publicus*, and to what questions did its existence give rise.

(c) What do you know of *either* Terence or Catullus ?

(d) Explain Cicero's attitude to Cæsar and Pompeius.

———————

LATIN.

Honours.—First Paper,

Monday, 24th June.—10 a.m. to 1 p.m.

70. 1. For Latin Prose :—

The distinguished plenipotentiary delivered before the congress a long and very effective harangue. He recalled the sacrifices and efforts of the Prince during previous years. He adverted to the disastrous campaign in which the Prince had appeared full of high hope, at the head of a gallant army, but had been obliged, after a short period, to retire. Nevertheless, he had not lost courage ; and now that the eyes of men had been opened, and so many cities had declared against the tyrant, the Prince found himself exposed to a bitter struggle. Although his own fortunes had been ruined in the cause, he had been unable to resist the daily flood of petitions which called upon him to come forward once more. The day of payment had arrived. Over his own head impended perpetual shame, over the fatherland perpetual woe, if the congress should now refuse the necessary supplies. " Arouse ye, then," cried the orator with fervour, " awaken your own zeal and that of your sister cities. Seize opportunity by the locks, who never appeared fairer than she does to-day."

MOTLEY

30.   2. For Latin Verse Composition :—

(*a*) Translate into Hexameters :—

Now when broad day the world discovered has,
Up Una rose, up rose the lion eke,
And on their former journey forward pass
In ways unknown, her wandring knight to seek,
With pains far passing that long wandring Greek,
That for his love refused deity :
Such were the labours of this lady meek,
Still seeking him, that from her still did fly ;
Then furthest from her hope, when most she weened nigh.

(*b*) Translate into Elegiacs :—

My mind to me a kingdom is ;
    Such perfect joy therein I find,
As far exceeds all earthly bliss,
    That God or Nature hath assigned ;
Though much I want that most would have,
    Yet still my mind forbids to crave.

I see how plenty surfeits oft,
    And hasty climbers soonest fall :
I see that such as sit aloft
    Mishap doth threaten most of all :
These get with toil and keep with fear :
    Such cares my mind could never bear.

OR, *as an alternative to Verse Composition,*—

Write in Latin :—

An Essay or Dialogue on the value of athletics ;

OR

A letter to a friend abroad on the recent Colonial Conference.

LATIN.

Honours.—Second Paper.

Wednesday, 26th June.—2 to 5 p.m.

20.   1. Translate into English :—

(*a*)   Caelius Ciceronis.

Invideo tibi : tam multa quotidie quae mirere istuc perferuntur. primum illud, absolutum Messallam, deinde eundem condemnatum, C. Marcellum consulem factum, M. Calidium a repulsa postulatum a Galliis duobus, P. Dolabellam quindecimvirum factum.   Hoc tibi non invideo, caruisse te pulcherrimo spectaculo et Lentuli Cruris repulsi vultum non vidisse.   At qua spe, quam certa opinione descenderat !   quam ipso diffidente Dolabella !   Et hercules, nisi nostri equites acutius vidissent, paene concedente adversario superasset.   Illud te non arbitror miratum, Servium, designatum tribunum plebis, condemnatum : cuius locum C. Curio petiit.   Sanequam incutit multis, qui eum facilitatemque eius non norunt, magnum metum : sed, ut spero et volo, et ut se fert ipse, bonos et senatum malet.   Totus, ut nunc est, hoc scaturit.   Huius autem voluntatis initium et causa est, quod eum non mediocriter Caesar, qui solet infimorum hominum amicitias sibi qualibet impensa adiungere, valde contempsit. Qua in re mihi videtur illud perquam venuste cecidisse, quod a reliquis quoque usque eo est animadversum ut Curio, qui nihil consilio facit, ratione et insidiis usus videretur in evitandis eorum consiliis, qui se intenderant adversarios in eius tribunatum : Lollios et Antonios et id genus valentes dico.

20.   (b)   At pater Anchises penitus convalle virenti
                     inclusas animas, superumque ad lumen ituras,
                     lustrabat studio recolens, omnemque suorum
                     forte recensebat numerum, carosque nepotes,
                     fataque, fortunasque virum moresque, manusque.
                     Isque ubi tendentem adversum per gramina vidit
                     Aenean, alacris palmas utrasque tetendit ;
                     effusaeque genis lacrimae et vox excidit ore :
                     Venisti tandem, tuaque exspectata parenti
                     vicit iter durum pietas ? datur ora tueri,
                     nate, tua et notas audire et reddere voces ?
                     Sic equidem ducebam animo rebarque futurum
                     tempora dinumerans ; nec me mea cura fefellit.
                     Quas ego te terras et quanta per aequora vectum
                     accipio ! quantis iactatum, nate, periclis !
                     Quam metui, ne quid Libyae tibi regna nocerent !
                     Ille autem : Tua me, genitor, tua tristis imago,
                     saepius occurrens, haec limina tendere adegit.
                     Stant sale Tyrrheno classes.   Da iungere dextram,
                     da, genitor, teque amplexu ne subtrahe nostro.
                     Sic memorans largo fletu simul ora rigabat.
                     Ter conatus ibi collo dare bracchia circum :
                     ter frustra comprensa manus effugit imago,
                     par levibus ventis, volucrique simillima somno.

20.   (c) Nam cunctas nationes et urbes populus aut primores aut singuli
regunt : delecta ex his et consociata reipublicae forma laudari facilius quam
evenire vel, si evenit, haud diuturna esse potest. Igitur, ut olim plebe
valida, vel cum patres pollerent, noscenda vulgi natura, et, quibus modis
temperanter haberetur, senatusque et optimatium ingenia qui maxime
perdidicerant, callidi temporum et sapientes credebantur, sic, converso
statu, neque alia re Romana quam si unus imperitet, haec conquiri tradique
in rem fuerit, quia pauci prudentia honesta ab deterioribus, utilia ab noxiis
discernunt plures aliorum eventis docentur. Ceterum ut profutura, ita
minimum oblectationis adferunt. Nam situs gentium, varietates proeliorum,
clari ducum exitus retinent ac redintegrant legentium animum : nos saeva
iussa, continuas accusationes, fallaces amicitias, perniciem innocentium, et
easdem exitii caussas coniungimus, obvia rerum similitudine et satietate.
Tum quod antiquis scriptoribus rarus obtrectator, neque refert cuiusquam
Punicas Romanasve acies laetius extuleris : at multorum, qui Tiberio
regente poenam vel infamiam subiere, posteri manent.   Utque familiae
ipsae iam exstinctae sint ; reperies qui ob similitudinem morum, aliena
malefacta sibi obiectari putent.   Etiam gloria ac virtus infensos habet, ut
nimis ex propinquo diversa arguens.   Sed ad inceptum redeo.

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

         (a) magis *nullius* interest quam *tua*, T. Otacili, non imponi cervicibus
             onus sub quo *considas*.
         (b) haec cum viderem, quid *agerem*, iudices ?   *contenderem* contra
             tribunum plebis privatus armis ?
         (c) tantamne rem tam neglegenter *agere* !
         (d)   notante
             iudice *quo* nosti populo.
         (e) at puer Ascanius, cui nunc cognomen *Iulo*
             additur.
         (f)   peream male, si non
             optimum *erat*.
         (g) Quis enim virtutem *amplectitur* ipsam, praemia si *tollas* ?

26.   3. Answer any *two* of the following :—

         (a) What were the contributions of Etruria and Greece to the
              Roman State Religion ?

(b) Show the importance of Sicily in Roman history.

(c) By what stages were the constitutional changes of Sulla repealed ?

(d) How far is the Latin drama original ?

(e) Contrast the poetry of the Republic with that of the Augustan age.

(f) Estimate the value of Cicero's philosophical writings.

GREEK.

LOWER GRADE.

Friday, 21st June.—2 to 4.30 P.M.

40.   1. Translate :—

Socrates on his defence.

Πάλιν εἶπεν ὁ Σωκράτης· ‘‘Ἄγε δὴ ἀκούσατε καὶ ἄλλα, ἵνα ἔτι μᾶλλον οἱ βουλόμενοι ὑμῶν ἀπιστῶσι τῷ ἐμὲ τετιμῆσθαι ὑπὸ δαιμόνων. Χαιρεφῶντος γάρ ποτε ἐπερωτῶντος ἐν Δελφοῖς περὶ ἐμοῦ πολλῶν παρόντων, ἔφη ὁ Ἀπόλλων μηδένα εἶναι ἀνθρώπων ἐμοῦ μήτε ἐλευθεριώτερον μήτε δικαιότερον μήτε σωφρονέστερον." ὡς δ' αὖ ταῦτ' ἀκούσαντες οἱ δικασταὶ ἔτι μᾶλλον ἐθορύβουν,[1] αὖθις εἶπεν ὁ Σωκράτης. ‘‘Ἀλλὰ μείζω μέν, ὦ ἄνδρες, εἶπεν ὁ θεὸς περὶ Λυκούργου τοῦ Λακεδαιμονίοις νομοθετήσαντος ἢ περὶ ἐμοῦ, λέγεται γὰρ εἰς τὸν ναὸν εἰσιόντα προσειπεῖν αὐτόν· ‘‘Φροντίζω πότερον θεόν σε εἴπω ἢ ἄνθρωπον." ἐμὲ δὲ θεῷ μὲν οὐκ εἴκασεν,[2] ἀνθρώπων δὲ πολλῷ προέκρινε διαφέρειν. ὑμεῖς δὲ καθ' ἕκαστον ἐπισκοπεῖτε ὧν εἶπεν ὁ θεός. τίνα μὲν γὰρ ἐπίστασθε ἀνθρώπων ἐλευθεριώτερον ἐμοῦ, ὃς παρ' οὐδενὸς οὔτε δῶρα οὔτε μισθὸν δέχομαι; σοφὸν δὲ πῶς οὐκ ἄν τις ἄνδρα φήσειεν εἶναι ὃς ἐξ ὅτουπερ συνιέναι τὰ λεγόμενα ἤρξατο οὐδεπώποτε ἐπαύσατο καὶ ζητῶν καὶ μανθάνων ὅ τι ἐδύνατο ἀγαθόν· ὡς οὖν ἀληθῆ εἶπεν ὁ θεός, πᾶσιν ἤδη οἶμαι δῆλον εἶναι, ὥστε μηδὲν δεῖν ἐμὲ περὶ τούτου ἔτι λέγειν."

    [1] θορυβεῖν, "to interrupt."   [2] εἰκάζειν, "to compare."

24.   II. Translate into Greek :—

(1) He said he would come if he wished.

(2) I did not know that your son had been killed in the battle.

(3) Do not tell me that you did that in order to please me.

(4) I asked the boy where his book was, and he said he did not know.

(5) Whoever answers first will get two obols.

(6) If you had told the truth, you would not have been punished.

10.   III. (a) Give—

gen. sing. of δόξα, πατήρ, ὄρις, βοῦς, γυνή, ναῦς.

dat. plur. of ἀνήρ, χείρ, κύων, ὀδούς, λέων, ῥήτωρ·

gen. plur. fem. of μέγας, τοσοῦτος, τοσόσδε, ἱστάς, εἰπών, πεφυκώς·

Parse—

καλλίους, θριξί, αἰδοῦς, ὄρους, ὅρους.

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

εἰρήσθω, προστῆναι, εἰδυῖα, ἀπῇσαν, ἀπόδυς, τεθῆναι, ἤκουσται λεληθέναι.

Give—

aor. inf. with active meaning of προλέγω, διαφέρω, παρέχω, καλῶ.

1st sing. perf. ind. act. of καθορῶ, διέρχομαι, ἀφαιρῶ, διαβάλλω.

3rd sing. fut. ind. with active meaning of ἐσθίω, βαδίζω, ἀκούω, ἐφίημι.

(c) Distinguish in meaning between παρ' ἐμοῦ, παρ' ἐμοί, παρ' ἐμέ, and ἐφ' ἡμῶν, ἐφ' ἡμῖν, ἐφ' ἡμᾶς.

16.   IV. Translate, adding a note on the syntax :—

    (1) ἔλαθον ἐμαυτὸν ταῦτ᾽ εἰπών.

    (2) μὴ ἀπέλθῃς πρὶν ἂν κελεύσω.

    (3) ἐὰν μὴ βούλῃ, οὐδεὶς ἐρεῖ σοι τἀληθῆ.

    (4) εὖ ἤδη ἀποθανούμενος ὑπὸ τῶν πολιτῶν.

    (5) εἰ κακῶς ποιεῖς τοὺς ἄλλους, οὐκ ἔστιν ὅπως οὐ κακῶς πείσει ὑπ᾽ αὐτῶν.

    (6) Ἀλκιβιάδης κατῆλθεν ὑπὸ τῶν πολιτῶν.

Give the Greek for—*Go away! stay there! come with me, give it to me, don't speak, where are you ?*

GREEK.

HIGHER GRADE.

Friday, 21st 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.)

20.   I. Translate—

Σκέψαι δὲ πρῶτον τὰ περὶ Ἀλκιβιάδην. ἐκεῖνος γὰρ φυγὼν παρ᾽ ἡμῶν οὐ τὴν αὐτὴν γνώμην ἔσχε τοῖς πρὸ αὑτοῦ ταύτῃ τῇ συμφορᾷ κεχρημένοις, ἀλλ᾽ οἰηθεὶς πειρατέον εἶναι βίᾳ κατελθεῖν, προείλετο πολεμεῖν πρὸς τὴν πόλιν, καὶ εἰς τοσαύτην ταραχὴν κατέστησεν οὐ μόνον αὐτὴν ἀλλὰ καὶ Λακεδαιμονίους καὶ τοὺς ἄλλους Ἕλληνας, ὥσθ᾽ ἡμᾶς μὲν παθεῖν ἃ πάντες ἴσασι, τοὺς δὲ Λακεδαιμονίους τοὺς τότε δόξαντας εὐτυχεῖν εἰς τὰς νῦν ἀτυχίας δι᾽ Ἀλκιβιάδην καθεστάναι· πεισθέντες γὰρ ὑπ᾽ αὐτοῦ τῆς κατὰ θάλατταν δυνάμεως ἐπιθυμῆσαι, καὶ τὴν κατὰ γῆν ἡγεμονίαν ἀπώλεσαν, ὥστ᾽ εἴ τις φαίη τότε τὴν ἀρχὴν αὐτοῖς γίγνεσθαι τῶν παρόντων κακῶν, ὅτε τὴν ἀρχὴν τῆς θαλάττης ἐλάμβανον, οὐκ ἂν ἐξελεγχθείη ψευδόμενος. ἐκεῖνος μὲν οὖν τηλικούτων αἴτιος γενόμενος κατῆλθεν εἰς τὴν πόλιν, μεγάλης μὲν δόξης τυχών, οὐ μὴν ἐπαινούμενος ὑφ᾽ ἁπάντων.

20.   II. Translate one of the following passages :—

    (a)   *Iris brings the message of Zeus to Poseidon.*

Ὣς ἔφατ᾽· οὐδ᾽ ἀπίθησε ποδήνεμος ὠκέα Ἶρις
βῆ δὲ κατ᾽ Ἰδαίων ὀρέων εἰς Ἴλιον ἱρήν.
ὡς δ᾽ ὅτ᾽ ἂν ἐκ νεφέων πτῆται νιφὰς ἠὲ χάλαζα
ψυχρὴ ὑπὸ ῥιπῆς αἰθρηγενέος Βορέαο,
ὣς κραιπνῶς μεμαυῖα διέπτατο ὠκέα Ἶρις,
ἀγχοῦ δ᾽ ἱσταμένη προσέφη κλυτὸν Ἐννοσίγαιον·
Ἀγγελίην τινά τοι, Γαιήοχε κυανοχαῖτα,
ἦλθον δεῦρο φέρουσα παραὶ Διὸς αἰγιόχοιο.
παυσάμενόν σ᾽ ἐκέλευσε μάχης ἠδὲ πτολέμοιο
ἔρχεσθαι μετὰ φῦλα θεῶν, ἢ εἰς ἅλα δῖαν·
εἰ δέ οἱ οὐκ ἐπέεσσ᾽ ἐπιπείσεαι, ἀλλ᾽ ἀλογήσεις,
ἠπείλει καὶ κεῖνος ἐναντίβιον πολεμίζων
ἐνθάδ᾽ ἐλεύσεσθαι· σὲ δ᾽ ὑπεξαλέασθαι ἀνώγει
χεῖρας, ἐπεὶ σέο φησὶ βίῃ πολὺ φέρτερος εἶναι,
καὶ γενεῇ πρότερος· σὸν δ᾽ οὐκ ὄψεται φίλον ἦτορ
ἶσόν οἱ φάσθαι, τόν τε στυγέουσι καὶ ἄλλοι.

Scan the first four verses, noting any peculiarities of Homeric prosody.

(b)   *Theseus charges Hippolytus with hypocrisy.*

ΘΗ. ὦ πόλλ' ἁμαρτάνοντες ἄνθρωποι μάτην.
     τί δὴ τέχνας μὲν μυρίας διδάσκετε
     καὶ πάντα μηχανᾶσθε κἀξευρίσκετε,
     ἓν δ' οὐκ ἐπίστασθ' οὐδ' ἐθηράσασθέ πω,
     φρονεῖν διδάσκειν οἷσιν οὐκ ἔνεστι νοῦς ;
ΙΙΙ. δεινὸν σοφιστὴν εἶπας, ὅστις εὖ φρονεῖν
     τοὺς μὴ φρονοῦντας δυνατός ἐστ' ἀναγκάσαι.
ΘΗ. φεῦ, χρὴν βροτοῖσι τῶν φίλων τεκμήριον
     σαφές τι κεῖσθαι καὶ διάγνωσιν φρενῶν,
     ὅστις τ' ἀληθής ἐστιν ὅς τε μὴ φίλος·
     δισσάς τε φωνὰς πάντας ἀνθρώπους ἔχειν,
     τὴν μὲν δικαίαν, τὴν δ' ὅπως ἐτύγχανεν,
     ὡς ἡ φρονοῦσα τἄδικ' ἐξηλέγχετο
     πρὸς τῆς δικαίας, κοὐκ ἂν ἠπατώμεθα·

25. Scan the first four verses, marking the caesura in each.

ΙΙΙ. For Greek Prose :—

That same night the king bade us all to sup with him, and entertained us with great state. After we had eaten and drunk, it pleased him to question us about our voyage. He said that he knew we were come from a far country, and asked us what chance had brought us to his realm. We answered his questions as best we could ; for we did not know whether it was yet safe to tell him all the truth or not ; and, if he were to learn that we had first intended to serve in his enemy's army, we feared that he might be incensed against us. We soon saw, however, that our fears were foolish ; **5.** for the king showed plainly that he knew all these things already.

IV. (1) Give aor. inf. act. (in Attic usage) of προσφέρω, ἀποκτείνω, περιορῶ, ἀντιλέγω.
     1st sing. perf. ind. act. of προαγορεύω, ὑπακούω, αἴρω, συνίημι.
     3rd sing. fut. ind. with active meaning of ἀποθνῄσκω, προλέγω, βαδίζω, ἀπελαύνω.
     Parse, giving 1st sing. pres. ind. act., προσσχών, τεθνεῶτος,
10.   κατέχεα, καταπιών, ἀνέῳκτο.

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

         (a) οὔ φημι χείρων εἶναι τῶν ἄλλων.
         (b) ἔδειξα τὸν ἄνθρωπον χρήματ' ἔχοντα παρὰ βασιλέως.
         (c) εἰπόν σοι ὡς τάχιστ' ἀπιέναι.
         (d) οὐκ ἂν ἔφη ταῦτα δρᾶσαι, εἰ μὴ ἐκέλευσεν ὁ στρατηγός.
         (e) μηδὲν μηδενὶ εἴπῃς ὧν παρ' ἐμοῦ ἔμαθες.

     (3) Translate into Greek :—

         (a) Do not go away before I bid you.
         (b) If I see my friend, I shall tell him you are here.
         (c) I know that you will do whatever we wish.
         (d) He said he was not at Athens at that time.
5.   (e) I shall try to tell you why I think so.

     (4) (a) What is the difference in meaning between λόγους ποιεῖν and λόγους ποιεῖσθαι ?

         (b) Show how the Latin *qui* with the subjunctive is translated into Greek.

GREEK.

HONOURS.—FIRST PAPER.

Friday, 21st June.—2 to 5 P.M.

20.   I. Translate :—

(1)   *Priam appeals to Hector.*

Ἕκτορ, μή μοι μίμνε, φίλον τέκος, ἀνέρα τοῦτον
οἶος ἄνευθ' ἄλλων, ἵνα μὴ τάχα πότμον ἐπίσπῃς,
Πηλείωνι δαμείς· ἐπεὶ ἦ πολὺ φέρτερός ἐστιν.
σχέτλιος· αἴθε θεοῖσι φίλος τοσσόνδε γένοιτο,
ὅσσον ἐμοί· τάχα κέν ἑ κύνες καὶ γῦπες ἔδονται
κείμενον· ἦ κέ μοι αἰνὸν ἀπὸ πραπίδων ἄχος ἔλθοι·
ὅς μ' υἱῶν πολλῶν τε καὶ ἐσθλῶν εὖνιν ἔθηκεν,
κτείνων καὶ περνὰς νήσων ἔπι τηλεδαπάων,
καὶ γὰρ νῦν δύο παῖδε, Λυκάονα καὶ Πολύδωρον,
οὐ δύναμαι ἰδέειν, Τρώων εἰς ἄστυ ἀλέντων,
τούς μοι Λαοθόη τέκετο, κρείουσα γυναικῶν.
ἀλλ' εἰ μέν ζώουσι μετὰ στρατῷ, ἦ τ' ἂν ἔπειτα
χαλκοῦ τε χρυσοῦ τ' ἀπολυσόμεθ'· ἔστι γὰρ ἔνδον·
πολλὰ γὰρ ὤπασε παιδὶ γέρων ὀνομάκλυτος Ἄλτης.
εἰ δ' ἤδη τεθνᾶσι καὶ εἰν Ἀΐδαο δόμοισιν,
ἄλγος ἐμῷ θυμῷ καὶ μητέρι, τοὶ τεκόμεσθα·
λαοῖσιν δ' ἄλλοισι μινυνθαδιώτερον ἄλγος
ἔσσεται, ἢν μὴ καὶ σὺ θάνῃς, Ἀχιλῆϊ δαμασθείς.
ἀλλ' εἰσέρχεο τεῖχος, ἐμὸν τέκος, ὄφρα σαώσῃς
Τρῶας καὶ Τρῳάς, μηδὲ μέγα κῦδος ὀρέξῃς
Πηλείδῃ, αὐτὸς δὲ φίλης αἰῶνος ἀμερθῇς.

20.   (2)   *Andromache defies Menelaus.*

ὦ πᾶσιν ἀνθρώποισιν ἔχθιστοι βροτῶν,
Σπάρτης ἔνοικοι, δόλια βουλευτήρια,
ψευδῶν ἄνακτες, μηχανορράφοι κακῶν,
ἑλικτὰ κοὐδὲν ὑγιὲς ἀλλὰ πᾶν πέριξ
φρονοῦντες, ἀδίκως εὐτυχεῖτ' ἀν' Ἑλλάδα.
τί δ' οὐκ ἐν ὑμῖν ἐστιν; οὐ πλεῖστοι φόνοι;
οὐκ αἰσχροκερδεῖς; οὐ λέγοντες ἄλλα μὲν
γλώσσῃ, φρονοῦντες δ' ἄλλ' ἐφευρίσκεσθ' ἀεί;
ὄλοισθ'· ἐμοὶ δὲ θάνατος οὐχ οὕτω βαρὺς
ὡς σοὶ δέδοκται. κεῖνα γάρ μ' ἀπώλεσεν,
ὅθ' ἡ τάλαινα πόλις ἀναλώθη Φρυγῶν
πόσις θ' ὁ κλεινός, ὅς σε πολλάκις δορὶ
ναύτην ἔθηκεν ἀντὶ χερσαίου κακόν.
νῦν δ' ἐς γυναῖκα γοργὸς ὁπλίτης φανεὶς
κτείνεις μ', ἀπόκτειν'· ὡς ἀθώπευτόν γε σε
γλώσσης ἀφήσω τῆς ἐμῆς καὶ παῖδα σην.
ἐπεὶ σὺ μὲν πέφυκας ἐν Σπάρτῃ μέγας,
ἡμεῖς δὲ Τροίᾳ γ'. εἰ δ' ἐγὼ πράσσω κακῶς,
μηδὲν τόδ' αὔχει· καὶ σὺ γὰρ πράξειας ἄν.

60.   II. For Greek Prose :—

At length he reached the mountains of Strathglass, and was compelled to hide himself in a cavern where seven robbers had taken up their abode. These men readily afforded refuge to the wanderer, and recognising the Prince, for whom they had repeatedly ventured their lives, they vowed unalterable devotion to his cause. With these men Charles Edward remained for about three weeks, and it was with the utmost difficulty they

would permit him to leave them. "Stay with us," said the generous robbers; "the mountains of gold which the Government have set upon your head may induce some gentleman to betray you, for he can go to a distant country and live on the price of his dishonour ; but to us there exists no temptation. We can speak no language but our own—we can live nowhere but in this country, where, were we to injure a hair of your head, the very mountains would fall upon us to crush us to death."

GREEK.

HONOURS.—SECOND PAPER.

Thursday, 27th June.—2 to 5 P.M.

25.

I. Translate :—

(1) Οἱ δ' ἀκούσαντες ἐπὶ τοὺς τὴν ὀλιγαρχίαν μάλιστα ποιήσαντας καὶ ἔτι τῶν ἄλλων τοὺς μετασχόντας τό μὲν πρῶτον ὥρμησαν βάλλειν ' ἔπειτα μέντοι ὑπὸ τῶν διὰ μέσου κωλυθέντες καὶ διδαχθέντες μὴ τῶν πολεμίων ἀντιπρῴρων ἐγγὺς ἐφορμούντων ἀπολέσωσι τὰ πράγματα, ἐπαύσαντο. μετὰ δὲ τοῦτο λαμπρῶς ἤδη ἐς δημοκρατίαν βουλόμενοι μεταστῆσαι τὰ ἐν τῇ Σάμῳ ὅ τε Θρασύβουλος ὁ τοῦ Λύκου καὶ Θράσυλλος (οὗτοι γὰρ μάλιστα προειστήκεσαν τῆς μεταβολῆς) ὥρκωσαν πάντας τοὺς στρατιώτας τοὺς μεγίστους ὅρκους, καὶ αὐτοὺς τοὺς ἐκ τῆς ὀλιγαρχίας μάλιστα, ἦ μὴν δημοκρατηθήσεσθαί τε καὶ ὁμονοήσειν, καὶ τὸν πρὸς Πελοποννησίους πόλεμον προθύμως διοίσειν, καὶ τοῖς τετρακοσίοις πο- λέμιοί τε ἔσεσθαι καὶ οὐδὲν ἐπικηρυκεύσεσθαι. ξυνώμνυσαν δὲ καὶ Σαμίων πάντες τὸν αὐτὸν ὅρκον οἵ ἐν τῇ ἡλικίᾳ, καὶ τὰ πράγματα πάντα καὶ τὰ ἀποβησόμενα ἐκ τῶν κινδύνων ξυνεκοινώσαντο οἱ στρατιῶται τοῖς Σαμίοις, νομίζοντες οὔτε ἐκείνοις ἀποστροφὴν σωτηρίας οὔτε σφίσιν εἶναι, ἀλλ', ἐάν τε οἱ τετρακόσιοι κρατήσωσιν ἐάν τε οἱ ἐκ Μιλήτου πολέμιοι, διαφθαρήσεσθαι.

25.

(2) Θαυμάζω δ' ὅτι τοὺς αὐτοὺς ὁρῶ ὑπὲρ μὲν Αἰγυπτίων τἀναντία πράττειν βασιλεῖ τὴν πόλιν πείθοντας, ὑπὲρ δὲ τοῦ 'Ροδίων δήμου φοβουμένους τὸν ἄνδρα τοῦτον. καίτοι τοὺς μὲν "Ελληνας ὄντας ἅπαντες ἴσασι, τοὺς δ' ἐν τῇ ἀρχῇ τῇ ἐκείνου μεμερισμένους. οἶμαι δ' ὑμῶν μνημονεύειν ἐνίους ὅτι, ἡνίκ' ἐβουλεύεσθε περὶ τῶν βασιλικῶν, παρελθὼν πρῶτος ἐγὼ παρῄνεσα, οἶμαι δὲ καὶ μόνος ἢ δεύτερος εἰπεῖν, ὅτι μοι σωφρονεῖν ἂν δοκοῖτε, εἰ τὴν πρόφασιν τῆς παρασκευῆς μὴ τὴν πρὸς ἐκεῖνον ἔχθραν ποιοῖσθε, ἀλλὰ παρασκευάζοισθε μὲν πρὸς τοὺς ὑπάρχοντας ἐχθρούς, ἀμύνοισθε δὲ κἀκεῖνον, ἐὰν ὑμᾶς ἀδικεῖν ἐπιχειρῇ. καὶ οὐκ ἐγὼ μὲν εἶπον ταῦτα, ὑμῖν δ' οὐκ ἐδόκουν ὀρθῶς λέγειν, ἀλλὰ καὶ ὑμῖν ἤρεσκε ταῦτα. ἀκόλουθος τοίνυν ὁ νῦν λόγος ἐστί μοι τῷ τότε ῥηθέντι. ἐγὼ γάρ, εἰ βασιλεὺς παρ' αὑτὸν ὄντα με σύμβουλον ποιοῖτο, ταῦτ' ἂν αὐτῷ παραινέσαιμι ἅπερ ὑμῖν, ὑπὲρ μὲν τῶν ἑαυτοῦ πολεμεῖν, ἐάν τις ἐναντιῶται τῶν 'Ελλήνων, ὧν δὲ μηδὲν αὐτῷ προσήκει, τούτων μηδ' ἀντι- ποιεῖσθαι τὴν ἀρχήν. εἰ μὲν οὖν ὅλως ἐγνώκατε, ὦ ἄνδρες 'Αθηναῖοι, ὅσων ἂν βασιλεὺς ἐγκρατὴς γένηται, φθάσας ἢ παρακρουσάμενός τινας τῶν ἐν ταῖς πόλεσι, παραχωρεῖν, οὐ καλῶς ἐγνώκατε, ὡς ἐγὼ κρίνω· εἰ δὲ ὑπὲρ τῶν δικαίων καὶ πολεμεῖν, ἂν τούτου δέῃ, καὶ πάσχειν ὁτιοῦν οἴεσθε χρῆναι, πρῶτον μὲν ὑμῖν ἧττον δεήσει τούτων, ὅσῳ δ' ἂν μᾶλλον ἐγνωκότες ἦτε ταῦτα, ἔπειθ' ἃ προ- σήκει φρονεῖν δόξετε.

30.

II. Translate, with notes on the syntax :—

(1) 'Εμαυτῷ σύνοιδα οὐδὲν ἐπισταμένῳ.

(2) 'Απηγόρευες ὅπως μὴ τοῦτο ἀποκρινοίμην.

(3) Τῆς σῆς οὐκ ἐρῶ τιμῆς τυχεῖν.

(4) Εὖ ἐποίησας ἀναμνήσας με.

(5) Δεινὸν ποιοῦνται εἰ μὴ εἴσουται.

(6) 'Εώρων οὐ κατορθοῦντες.

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

δεδορκώς, στέγαι, κατθανεῖν, μακραίων, ἀπεννέπειν, μοχθεῖν, χρῄζειν, τλῆναι, ἄκος, κραίνειν.

Distinguish in meaning the following pairs of phrases :—

ἐθέλω ταῦτα ποιεῖν, βούλομαι ταῦτα ποιεῖν : οἶδα ταῦτα ποιεῖν, οἶδα ταῦτα ποιῶν : ἀμύνω τοῖς πολίταις, ἀμύνομαι τοὺς πολίτας.

Distinguish, according to their accent :—

λαβών, λαβών : μένει, μενεῖ : παῦσαι, παῦσαι.

Give the derivation of the following English words, noting any difference in meaning between the Greek originals and the derivations :—

Apostle, deacon, logomachy, antiseptic, diagnosis, crisis.

20. III. Answer any *two* of the following questions :—

(1) What inferences can be drawn from Homeric arms and armour as to the date of the epic poems ?

(2) Contrast the Old and the New Comedy.

(3) State what you know of any of the following : Callinus, Anacreon, Simonides, Antipho, Theocritus.

(4) Illustrate the influence of import and export trade upon Greek history.

(5) Write notes upon the following :—

προβούλευμα, πρύτανις, ἀπελεύθερος, εἰσαγγελία, ἀντωμοσία.

FRENCH.

LOWER GRADE.

Friday, 21st June.—10 A.M. to 12.30 P.M.

To secure full marks, the whole of this paper should be answered.

30. I. Translate into French :—

At last the man who had caught me got up to another man. "See, Jack," said he, "I have just found a cat."

"Well, Bob, show me it. I do not see it anywhere."

"Here it is, in my handkerchief ; is it not a pretty one ?" said he, as he raised up the corner of the handkerchief.

"It's pretty enough," replied Jack, "but we do not want a cat, it is of no use to us, and, if we kept it, we should have to feed it."

"Oh !" said Bob, "if you don't want it, I will keep it. Some day, when I am tired of it, I can kill it and sell its skin."

How sad I felt when I heard these words. "Poor Fluff," said I to myself, "after having been so badly treated by those cruel children, I am now coming to a worse end. What is to become of me ? How I wish I was once more in the house of my first mistress !"

30 II. Translate into good English :—

Montesquieu à Venise.

Il allait partout, voyait tout, interrogeait, causait et le soir prenait note des observations qu'il avait faites. Il y avait une heure ou deux qu'il était rentré et qu'il était à son occupation ordinaire, lorsqu'un inconnu se fit annoncer. C'était un Français assez mal vêtu, qui lui dit : "Monsieur, je suis votre compatriote. Il y a vingt ans que je vis ici ; mais j'ai toujours gardé de l'amitié pour les Français ; et je me suis cru quelquefois trop heureux de trouver l'occasion de les servir, comme je l'ai aujourd'hui avec vous. On peut tout faire dans ce pays, excepté se mêler des affaires d'Etat. Un mot inconsidéré sur le gouvernement coûte la tête, et vous en avez déjà dit plus de mille. On vous épie, on suit tous vos pas, on tient note de tous

vos projets ; on ne doute pas que vous écriviez. Voyez, monsieur, si en effet vous avez écrit, et songez qu'une ligne innocente, mais mal interprétée, vous coûterait la vie. Voilà tout ce que j'ai à vous dire. J'ai l'honneur de vous saluer.

10.

III. (a) In the following sentences put the subject in the plural form (*des* Français, instead of *un* Français ; and *nous* instead of *je*), and make all the other grammatical alterations necessitated by such a change :

C'était un Français assez mal vêtu, qui lui dit : " Monsieur, je suis votre compatriote. Il y a vingt ans que je vis ici ; mais j'ai toujours gardé de l'amitié pour les Français : et je me suis cru quelquefois trop heureux de trouver l'occasion de les servir, comme je l'ai aujourd'hui avec vous."

10.

(b) Put the following sentences in the interrogative form : —

(a) Il y a longtemps qu'il est ici.
(b) Il interroge les personnes qu'il rencontre.
(c) La vertu obtient toujours sa récompense.
(d) Il ne lui a pas parlé.
(e) On leur a prêté des livres.

20.

IV. Write from memory a French version of the passage read out.

FRENCH.

Lower Grade.

Friday, 21st 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, Le cordonnier et les nains, *adding at the same time the following words :* " Leather = cuir (*masc.*) *and* Waistcoat = gilet (*masc.*)." *He must 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.*

There was once a cobbler who worked very hard, and was very honest : but he was very poor, and at last he had nothing but just enough leather to make one pair of shoes.

He cut his leather out, all ready to make the shoes the next day, and went to bed, meaning to get up early in the morning. When he got up, he was surprised to find the shoes made, and very well made they were.

The same day a gentleman came in, admired the shoes and paid a high price for them : and the poor shoemaker, with the money, bought leather enough to make two pairs more. He cut the leather out and went to bed. Next morning the same thing happened : the shoes were made. He sold them, and was able to buy leather for four pairs of shoes. And so it went on for some weeks and the cobbler and his wife were fast becoming rich.

One evening, as they were sitting by the fire, he said, " I should like to sit up and see what happens." So they did this. And what do you think they saw ? Two naked dwarfs, who ran into the room, set to work and finished all the shoes before daybreak.

" These little men have been very good to us, I'm sure," said his wife ; " they must be cold, without anything to wear. I'll make each of them a coat, a waistcoat, and a pair of trousers : you make them a pair of shoes."

" Certainly," said the cobbler.

When the clothes were ready they put them in the room the dwarfs worked in, and waited to see what would happen. As soon as the dwarfs saw the clothes, they put them on and danced about, full of joy, and then they disappeared.

The good couple saw them no more, but they were rich and happy as long as they lived.

FRENCH.

HIGHER GRADE.

Friday, 21st June.—10 A.M. to 1 P.M.

To secure full marks, the whole of this paper should be answered.

35. I. Traduire très soigneusement en français :

"And now that I know something about you, Miss Challoner," he said, "I will tell you why I asked you to be good enough to come and see me ; you must have wondered what my letter meant. To begin with, I am an old man, as you can see for yourself. I suffer a great deal from rheumatism, otherwise I should have done myself the pleasure of calling on you, instead of giving you the trouble of coming here. I wanted to see you because lady authors are, as a rule, uncertain creatures. Most of them go in for literature simply because they have nothing better to do. Others do not care for the money, but they do most decidedly for the renown. Few, very few, are content to work with their pen as their poorer sisters are forced to work with their needles. Therein lies the secret of the more permanent success of men authors. . . . Now, will you be contented to work hard without any great hope of fame—to work, in fact, anonymously for a small but certain income ?"

25. II. Traduire en bon anglais :

(*a*) Je sens depuis vingt ans un malaise général, plus ou moins fâcheux ; je n'ai jamais la tête libre. Elle est quelquefois si lourde que c'est comme un poids qui vous tire en avant, et qui vous entraînerait d'une fenêtre dans la rue, ou au fond d'une rivière si on était sur le bord. J'ai des idées noires, de la tristesse, de l'ennui, je me trouve mal partout, je ne veux rien, je ne saurais vouloir, je cherche à m'amuser et à m'occuper, inutilement ; la gaîté des autres m'afflige, je souffre à les entendre rire ou parler. Connaissez-vous cette espèce de stupidité ou de mauvaise humeur qu'on éprouve en se réveillant après avoir trop dormi ? Voilà mon état ordinaire, la vie m'est en dégoût ; les moindres variations dans l'atmosphère me sont comme des secousses violentes ; je ne saurais rester en place, il faut que j'aille sans savoir où. C'est comme cela que j'ai fait le tour du monde. Je dors mal, je manque d'appétit, je ne saurais digérer, je ne suis bien que dans un coche. Je suis tout au rebours des autres ; je me déplais à ce qu'ils aiment, j'aime ce qui leur déplait.

20. (*b*) Le petit mendiant, pieds nus, suit son chemin ;
De village en village, il va tendre la main,
Traînant à ses côtés son bâton et sa miche,*
Car le rare passant d'aumône est assez chiche.†
Devenu forcément philosophe et rêveur,
Il marche d'un pas lent dans l'air plein de saveur,
Ecoutant les oiseaux qui se cherchent querelle.
Comme il est fatigué, près d'une passerelle ‡
Il s'assied. Devant lui, des canards fendent l'eau,
Tout en donnant la chasse au moindre vermisseau.§
Alors, cassant son pain, lentement, miette à miette,
Au milieu de leurs rangs empressés il le jette.
Et ce déshérité, prodigue et généreux,
Se donne le plaisir de faire des heureux.

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* Loaf of bread.   † Sparing of.   ‡ Foot-bridge.   § Worm.

20.   III. Narration française.

(a) Traitez, en une page environ, le sujet suivant :

"Qui s'aime trop n'a point d'amis."
Expliquez ce proverbe et dites ce que vous en pensez.

ou (b) Racontez, en une page environ, l'histoire suivante en développant les détails donnés ci-dessous ;

Un moineau s'installe dans le nid d'une hirondelle, en son absence. Retour de l'hirondelle et discussion ; résistance du moineau. L'hirondelle appelle au secours : arrivée d'autres hirondelles ; résistance obstinée du moineau. Les hirondelles bavardent, s'éloignent, puis reviennent, avec de la terre dans leurs becs. Elles ferment l'entrée du nid ; le moineau est fait prisonnier.

FRENCH.

HONOURS.—FIRST PAPER.

Friday, 21st June.—10 A.M. to 1 P.M.

40.   I. Traduire en français :

It would be difficult to describe the eagerness with which the American throws himself upon the vast prize, thus offered him by fortune. In pursuit of it, he braves without fear the arrow of the Indian and the diseases of the wilderness. The silence of the forests does not awe him ; the attacks of wild beasts do not alarm him. Passion, stronger than the love of life, is for ever goading him on. Before him there is spread out an almost boundless continent, and it might be said that fearing even now that there will not be room in it, he is hastening lest he should arrive too late. Sometimes the emigrants advance so fast, that the wilderness reappears behind them. The forest has but bent beneath their feet ; the moment they are passed by, it rises again. It is not uncommon to meet with dwellings abandoned in the midst of woods. The ruins of a hut are often discovered in the very heart of a wilderness, and we are surprised at many attempts at clearing the ground, which attest at once the power and the fickleness of man. On these ruins of a day the ancient forest soon throws out new suckers, and Nature comes with a smile to cover with flowers and leaves the traces of man, and to do away with every vestige of his brief occupation.

35.   II. Composition française.

Traiter l'un des sujets suivants :

(a) Expliquer, développer et apprécier cette pensée :—"La vie des héros a enrichi l'histoire, et l'histoire a enrichi les actions des héros ; ainsi je ne sais qui sont plus redevables, ou ceux qui ont écrit l'histoire à ceux qui leur en ont fourni une si noble matière, ou ces grands hommes à leurs historiens."

LA BRUYÈRE.

(b) Quel est le genre littéraire que les Français ont cultivé avec le plus de constance et de succès ? Indiquez-en les principales productions, avec leurs caractères communs essentiels.

(c) Exposer, dans une lettre à un Français, les traits saillants du caractère écossais et de la vie nationale en Ecosse.

FRENCH.

Honours.—Second Paper

Thursday, 27th June.—10 a.m. to 1 p.m.

25.　　I. Traduire en anglais :

(a) L'enfance de Shakspeare, imprégnée de sentiments ruraux et d'habitudes rurales, bercée par la douce liberté des champs, des bois et des prairies, toute parfumée encore des senteurs de l'Avon, avait fait place à une adolescence aventureuse, ardente et pauvre. Forcé de s'enrégimenter à Londres dans la troupe de ces poètes qui parlaient un langage bizarre, sans rapport avec l'idiome des ancêtres, il étudia d'abord Wyatt, Surrey, et Sydney. Ceux-ci avaient entrevu quelques lueurs de la civilisation du Midi et s'évertuaient à la copier. Les pastorales métaphysiques de la Sicile, de l'Italie et de l'Espagne enivraient les esprits. Le factice et l'artificiel faisaient irruption. Dans ce milieu étrange fut lancé le jeune fils du brasseur, propriétaire rural, agriculteur de Stratford ; il avait appris le rudiment dans son village, où quelque brave pédant armé de verges l'avait dégrossi. Il sentit en lui-même assurément une lutte très-vive entre la réalité de la nature et le spiritualisme poétique, affecté, mondain qui le pressait. Combattre de front, lui inconnu et pauvre, cette mode consacrée, était impossible. Il commença par suivre le courant, tout en ménageant le sarcasme pour l'avenir.

Ainsi sont écloses, pendant la première phase de sa vie littéraire, cinq ou six œuvres ébauchées, dont le couronnement fut Roméo et Juliette, drame charmant, passionné,—et encore tout hérissé de pointes italiennes.

25　　(b)　　　　　　　　*En forêt.*

Ils règnent fiers et grands dans la montagne austère,
Les vieux sapins géants qui croissent en forêt ;
Marche et pénètre au cœur de leur noir sanctuaire,
Et l'arbre sombre et fort te dira son secret.

Salut, rois invaincus des hauteurs virginales !
Oui, la jeunesse en vous circule par torrents,
Vous aimez vous sentir frissonner aux grands hâles
Quand sous vos rameaux verts fermente le printemps.

Non, vous ne croissez pas dans les ravins vulgaires,
Dans les riches vallons, sur les gazons soyeux ;
Dans le désert sauvage, où pleurent les bruyères,
Vos faîtes vont humer l'azur foncé des cieux.

Et lorsque l'un de vous, seul, roidi sur sa roche,
Tombe aux coups de l'orage, il tombe le front haut,
Il tombe comme un preux sans peur et sans reproche,
Et des gerbes de fleurs lui font un gai tombeau.

Comme un roi dans sa pourpre il dort couché dans l'herbe,
Il dort calme et puissant de son dernier sommeil ;
Il a dans sa forêt poussé libre et superbe,
Il a vécu cent ans d'air vierge et de soleil.

25.　　II. Traiter en français l'*un* des sujets suivants :—

(a) Apprécier les qualités du style et du rythme du morceau " En forêt."

ou (b) Scander *deux* des strophes de " En forêt " et exposer les principes de la versification française en ce qui concerne le rythme, la césure et la rime.

ou (c) Choisir *six* mots de " En forêt," et indiquer : 1° Les divers sens de ces mots dans la langue usuelle, avec exemples à l'appui ; 2° Les mots formés du même radical, en expliquant leur formation et leur sens précis.

COMMERCIAL FRENCH.

Wednesday, 26th June.—2 to 3.30 p.m.

The whole of this Paper should be answered.

25.   1. Translate into English :—

Pauillac, le 8 mars 1907.

Messieurs Derocle Frères,
         Paris.

        Messieurs,

        Nous nous empressons de vous faire savoir que nous venons de recevoir de Messieurs Renard et fils, de Rio de Janeiro, le connaissement d'un envoi de :

R. & F.   {   250 balles laines brutes, du poids net de 250 kgs. chacune, et
1 à 250.   {   valant ensemble frs. 175,000.

        Ces marchandises chargées à bord du navire "Ville de Bordeaux," capitaine Bermot, ont été assurées pour la somme de frs. 180,000 par nos soins et d'après avis des expéditeurs. Nous vous remettons, ci-joint, la police d'assurance.

        Aussitôt que le navire arrivera ici, nous vous expédierons les marchandises, conformément aux instructions que vous voudrez bien nous donner, et vous remettrons notre compte de frais et débours.

        Veuillez agréer, Messieurs, nos salutations distinguées.

ROZIER & CIE.

35.   2. Write in French a letter to a firm of merchants in Havre, informing them that one of your vessels (giving name of ship and captain) is sailing from Glasgow for their port with a cargo of coals and pig-iron. Request them, upon the arrival of the vessel, to attend to the consignment, in accordance with the details in the manifest and bills of lading, and, as regards the charges and necessary disbursements connected with the discharging of the cargo, to debit your account, handing you a statement in due course.

16.   3. Explain briefly in French the meaning of the following business terms :— *charter-party, tare, floating policy, A1 at Lloyd's.*

        Either—

24.   4. Translate the following market report :—

        Blés.—Il y a eu quelques acheteurs à la première cote, et, comme les vendeurs sont réservés, le ton a été ferme pendant toute la réunion, et les prix de clôture indiquent une avance de 10 à 15 centimes suivant mois de livraison.

        Avoines.—Meilleure demande, prix plus fermes et en hausse de 10 à 15 centimes sur le rapproché et de 5 à 10 centimes sur le livrable.

        Huile de Lin.—Tendance calme, mais soutenue ; affaires restreintes et prix en hausse de 50 centimes sur le courant, mais en recul partiel de 25 centimes sur le livrable.

        Spiritueux.—Le marché ouvre soutenu, mais devient lourd en séance, pour finir calme aux prix de samedi.

        Sucres.—On débute en hausse de 12 centimes, pour finir avec une nouvelle hausse d'autant. La hausse a été causée par une forte demande pour l'exportation et par la fermeté de l'étranger, motivée, dit-on, par les avis de Cuba annonçant une diminution de production dans la province de Matanzas.

        Or,

        5. (*a*) Translate into English :—

                (1) Le taux actuel de l'escompte est de 4 %.
                (2) On a expédié les marchandises par petite vitesse aux consignataires.
                (3) Ce navire a été construit exprès pour le cabotage.
                (4) Les frais d'emballage et de magasinage seront à la charge du fabricant.

VALUE.
———

(b) Translate into French :—

    (1) The tare must be deducted from the gross weight of the bales.

    (2) Payments may be made by cheque or by post-office order.

    (3) The shipowners can claim this amount from the underwriters.

    (4) We have still to collect several outstanding debts before closing our books.

GERMAN.

LOWER GRADE.

Monday, 24th 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, 3.

18. 1. Translate into English :—

(a) Bei der Mittagstafel wurden die beiden Fische auf einer goldenen Schüssel dem König Gunther vorgesetzt. Als er sie beschaut und davon gegessen hatte, war er sehr verwundert und rief : „Fürwahr, noch nie habe ich solche Fische hier bei uns ge'ehen; ich glaube, sie müssen von weit her sein: sag' an, Küchenmeister, von wem du sie bekommen hast." Da erzählte der Koch, ein Fischer habe sie ihm gebracht. Der König aber befahl, man solle diesen Mann sogleich holen. Der Fischer kam und erwiderte auf des Königs Frage : „Gestern abend stand ich am Ufer des Rheines; da sah ich einen Wanderer eilig herankommen. Es war ein schöner und starker Ritter, mit Schild und Speer gerüstet, als wäre er jeden Augenblick zum Kampfe bereit. Ihm folgte eine junge Magd von wunderbar schöner Gestalt ; die führte ein Roß am Zügel[1], von d'ssen Rücken zwei Schreine[2] herabhingen. Wenn aber das Tier sich schüttelte, dann klang es, als ob die Schreine mit Gold und Edelsteinen gefüllt wären. Von diesem Wanderer habe ich die Fische als Lohn für die Ueberfahrt erhalten." Als Hagen, der mit an des Königs Tafel saß, diese Worte hörte, rief er aus : „Nun freuet euch, liebe Freunde ; denn wisset, jener Wanderer kann kein anderer sein als Walther von Aquitanien, der mit der schönen Königstochter Hildegund entflohen ist."

    [1] Rein, bridle.   [2] Chest.

12. (b)

Am Sommertag.

Ich ging bei hellem Sonnenschein
In die blühende Heide hinein.
Die Bienen flogen hin und her
Ueber dem roten Blütenmeer,
Mit Fleiß den Honig sich zu suchen,
Mit dem man bäckt die braunen Kuchen
Im Winter um die Weihnachtszeit.
Das Wachs[1] auch machen sie bereit
Zu den Kerzen[2], die freundlich glühn,
Wie Sterne, im dunkeln Tannengrün.
Und wie ich weiter ging, da fand
Ich auch ein Bäumchen, das da stand,
Eine Tanne war's—eine bess're kaum
Könnt' man sich wählen zum Weihnachtsbaum.
So wird am Sommertag auf der Heide
Schon gesorgt für die Weihnachtsfreude ;
Wer aber, der den Christbaum schaut,
Denkt an Bienen und Heidekraut[3] ?

    [1] Wax.   [2] Candle.   [3] Heather.

15.   2. Write out from memory, a German version of the passage read out.

30.   3. Translate into German (using the familiar forms of the second personal pronoun "thou," "thee," thine") :—

My dear friend,—"What," you will say when you get this, "a letter from Edinburgh ?—who can write to me from there ?" Yes, my dear Fred, we are all four in Scotland, my father, mother, and sister, and that wild little fellow, Charles Winter. A fortnight ago I never thought of such a thing as a sea-voyage, and now I have had one for two long days in splendid weather. I wish, though, it had been a wee bit stormy,—well, who knows what may happen when we return. A fine old town is Hamburg—so much to see, and only two days for all the wonderful things—ships, I don't know *how* large ! And this is our fifth day in Edinburgh—the finest city in Europe, they tell (*say*, one tells) me, if not in the whole world. It is really a grand place—all hill and dale. You remember we once saw Schiller's Mary Stuart together at the theatre—well, here is her palace where her singing-master was murdered; and close by a wonderful hill, like a lion, named after an old king Arthur. But then the castle on a rock—simply magnificent I tell you. To-morrow we go to the Highlands, where soon more from your loving friend Charles.

10.   4. Give German adverbs, or adverbial expressions, for *any ten* of the following :—since then ; especially ; nevermore ; nowhere ; everywhere ; in any case ; for the most part ; uphill ; at first ; at last ; backwards ; at most ; on the whole ; indeed ; besides ; meanwhile.

15.   5. Translate into German :—

    (*a*) When my carriage stopped at the gate, my friend was looking out of the window.

    (*b*) Why were you not at (*say*, in the) school yesterday ? The teacher was asking for you.

    (*c*) If you do this for me, I will take (*say*, make) a long walk with you this afternoon.

    (*d*) You should speak a little louder ; I cannot hear what you say.

    (*e*) My eldest sister is in her sixteenth year ; she was born on the 22nd June 1892.

GERMAN.

LOWER GRADE.

Monday, 24th 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.

In a large city, an old beggar used to stand every day at the corner of a street. At a string, he held a wretched little dog which had a card tied to its neck with the words, "I am blind." A merchant, on the way to his business, passed by there every morning, and threw a penny into the beggar's hat. One day, however, being in haste, he rushed past, when the man called after him, "Pray, don't forget me, sir." The gentleman turned round at once, and said, "Hallo, my friend, I thought you were blind ?" "Oh no, good sir," replied the sly old fellow, "not I, it is my poor dog that is blind."

GERMAN.
HIGHER GRADE.
Monday, 24th 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,* 3.

18. 1. Ins Englische zu übersetzen:—

(*a*) So sollte denn Jolande ohne den Vater zurückkehren. Es fand sich für sie
eine Gelegenheit, ein Stück Weges zu fahren, und der Wagen rollte in herrlicher
Sommerfrühe die Bergstraße entlang. Da holte er einen jungen Wanderer ein, der
mit dem Ränzel[1] auf dem Rücken fröhlichen Mutes am Knotenstock daherschritt. Er
war gut gekleidet; die Mütze und das farbige Band verrieten den Studenten. Er
rief den alten Fuhrmann an: „Hättet Ihr wohl etwas Raum für mich? Es soll mir
auf einen Krug Wein mit Imbiß[2] nicht ankommen!"

Und halb verlegen, halb keck grüßte er das schlanke Mädchen mit großer Höflichkeit.
Seine blauen, treuherzigen Augen und sein frisches, fröhliches Gesicht gefielen ihr.
Eben darum wollte sie seine Gesellschaft nicht, und ihre Augen baten den Fuhrmann,
den Jüngling abzuweisen. Aber der Alte hieß ihn aufsteigen und schweigend ging die
Fahrt eine Weile. Als sie jedoch um eine Felsenecke bogen, da stieß der Bursche einen
hellen Jauchzer aus, denn vor ihnen lagen im vollen Glanze die Albulaberge und hoben
die weißen Häupter in den blauen Himmel: „Alt frei Bündnerland — was geht
darüber?"

Da zog der Fuhrmann die Pfeife aus dem Munde, klopfte die Asche aus und begann
mit ihm zu plaudern. „Und was woll't Ihr denn drüben?" fragte er. „Meine
Mutter besuchen — Frau Gilgia Gruber in Puschlav," erwiderte der Jüngling, und
helle Sohnesfreude klang aus seinen Worten. Jolande erglühte bei diesem Namen.
Sie sah in Gedanken die herrliche Frau, die einst am Tor von Santa Maria gesessen
und ihr die Wange gestreichelt hatte, und von der sie damals in kindlicher Einfalt
wünschte, sie möchte ihre Mutter sein. Und das war ihr Sohn, das war der Knabe,
mit dem sie einst in Pontresina gespielt hatte! Der strenge Ernst auf dem schmalen
Mädchengesicht verlor sich.

[1] Knapsack.   [2] A little meal, something to eat.   [3] was giebt's schöneres!

12 (*b*)
Ich sah 'nen alten Birnbaum heut' am Wege,
Ins Mark getroffen und zerspellt vom Blitze,
Hinfort, so schien es, zu nichts anderm nütze,
Als daß man für den Ofen ihn zersäge;

Doch nahm ein kund'ger Gärtner ihn in Pflege
Und schmiedete, verschließend jede Ritze,
Ein Eisenband herum zu sicherer Stütze,
Daß wieder sich der Saft im Innern rege.

Und sieh, die Heilung glückte, Frühlingslust
Quoll neu hervor, und in des Herbstes Licht
Seh' ich den Wipfel fruchtbehangen ragen.

Sei mir ein Vorbild, Alter! Um die Brust
Das eh'rne Band geschmiedet strenger Pflicht,
Soll auch, will's Gott, mein Stamm noch Früchte tragen.

15. 2. Erweitern Sie die folgende Skizze zu einer vollständigen kleinen Geschichte:—

German poet Zacharia—sea-trip—calm sea—favourite dog overboard—
appeal to captain—sorry, against rule—ship to stop only for men—" well, if
so . . ." jumps after—both saved—general rejoicing.

30. 3. Ins Deutsche zu übersetzen:—

Near Peking a dead man was found one day, and two brothers were
seized not far from the spot. But the corpse showing only one wound, only
one of them could be the murderer, and each declared that he alone had

committed the crime. The matter was brought before the Emperor. "To pardon both," he said, "would be dangerous leniency, and to hang both would be cruel ; let the mother come : she shall decide, for she knows her sons best." The poor woman appeared, and being told what was expected of her, she burst into tears, and said, "If I am to decide, let the elder boy live." Being asked to give her reasons, she said, "The elder is only my step-son, but I promised to my dying husband that I would always keep him as my own son. Is a mother's love now to make me break my word ? But God alone knows what it costs me to sacrifice my own child !" Deeply moved, the Emperor pardoned both youths.

10.   4. Jbiomatifd) ju überfe§en (mit einem ber mobalen Þilfѕverben: wollen, follen, mögen, laffen, bürfen):—

     (*a*) He has *had* a house built for his son.

     (*b*) You *ought* not to have left the house.

     (*c*) I did not *care* to see him at my house.

     (*d*) My sister has not *been allowed* to go to (auf) the ball.

     (*e*) The man *says* he has not done it.

15.   5. Jnѕ Deutfdje ju ä:erfe§en:—

     (*a*) If I only knew to whom I am indebted for the pretty present sent me last week.

     (*b*) I flatter myself to have done all that could be done in the matter.

     (*c*) Do you not think that he was right in refusing the man's offer ?

     (*d*) It is scarcely necessary to say more about it than what has been said.

     (*e*) I think she is a most charming singer,—don't you think so, too ?

GERMAN.

Honours.—First Paper.

Monday, 24th 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, 1.

45.   1 Ueberfe§en ©ie inѕ Deutfdje:—

Mr. Tulliver walked abruptly out of the arbour as he uttered the last sentence, and, without looking round at Mr. Moss, went on to the kitchen door, where the oldest boy was holding his horse, and his sister was waiting in a state of wondering alarm. "Won't you come in, brother ?" she said, looking anxiously at her husband, who was walking slowly up while his brother-in-law had his foot already in the stirrup.

"No, no ; good-bye," said he, turning his horse's head, and riding away. No man could feel more resolute than he did till he got outside the yard-gate, and a little way along the deep-rutted lane ; but before he reached the next turning, which would take him out of sight of the dilapidated farm-buildings, he appeared to be smitten by some sudden thought. He checked his horse, and made it stand still for two or three minutes, during which he turned his head from side to side in a melancholy way. Evidently, after his fit of promptitude, he was relapsing into the sense that this is a puzzling world. At last he turned his horse, and rode slowly back.

Mr. Tulliver's return into the yard was descried by several young Mosses, who immediately ran in with the exciting news to their mother, so that Mrs. Moss was again on the doorstep when her brother rode up. She had been crying, but was rocking the baby to sleep in her arms now, and made no ostentatious show of sorrow as her brother looked at her, but merely said, "The father's gone to the field again, if you want him, brother."

"No, Gritty, no," said Mr. Tulliver, in a gentle tone. "Don't you fret, that's all, I'll make a shift without the money a bit, only you must be as clever and contriving as you can." Mrs. Moss's tears came again at this unexpected kindness, and she could say nothing.

2. Themas für einen deutschen Auffatz:—

30.

    (a) Am Kamin.

    (b) Das Vaterhaus.

    (c) Die Natur ist das einzige Buch, das auf allen Blättern großen Inhalt bietet.

GERMAN.

HONOURS—SECOND PAPER

Thursday, 27th June.—2 to 5 P.M.

The whole of this Paper should be answered.

15.

1. Ueberseßen Sie uns Englische!—

    (a) Während der leßten Nacht war in den Bergen ein Wolkenbruch niedergegangen, und eine wilde Flut wälzte sich über dem Wasserpfade dahin, den sonst der Bach zwischen Wiesen durchlief. – Die ältesten Leute erinnerten sich nicht solches Wogenbrangs; der Bach war ohnedies hoch angeschwollen seit dem Regen der leßten Wochen, jeßt brauste und donnerte er durch das enge Tal zwischen dem Stein und der Berglehne und übergoß die Felder, wo ihm nicht steiles Land und Fels troßten. Jäh und zornig schoß das Wasser durch die Enge, es sprudelte über den Felsblöcken und um die Köpfe der Weiden. Auf seiner Oberfläche trug es gemähtes Gras der Wiesen, abgerissene Baumäste und Trümmer von Menschenwohnungen. Die Leute vom Gute standen an der Hecke des Obstgartens und sahen schweigend auf den Strom und die sprechenden Zeugnisse zerstörten Lebens hinab. Die Kinder aber liefen geschäftig am Rande entlang und zogen mit Stangen an sich, was sie erreichen konnten. Als von fern ein lebendes Tier herangeschwommen kam, erhoben sie lautes Geschrei: es war ein Zicklein, das auf dem Bretterdach seines Stalles stand und kläglich schrie, als bäte es um Rettung. Da erfaßte Hans das Brett mit einem Brunnenhaken und zog es an sich; das Tierchen sprang ans Land und wurde von den Kindern in großem Zuge nach dem Hofe geführt und dort gefüttert.

15.

    (b) Als Selbstherrscher, ohne leitende Minister und Günstlinge, verwaltete Friedrich den Staat ganz eigenmächtig und führte viele einen neuen Zustand begründende oder vorbereitende Reformen ein; wobei er indes mit großer Umsicht vorging und nichts übereilte. Von dem Grundsaß ausgehend, daß der König der erste Diener des Staates sei und daß die Wohlfahrt der Gesamtheit sein erstes und höchstes Ziel sein müsse, hatte Friedrich überall das Glück des Volkes im Auge und widmete sich stets den Staats-angelegenheiten mit größter Pflichttreue und der angestrengtesten Tätigkeit. Seine Hauptsorge war auf die materielle Verbesserung des Landes und seiner Untertanen gerichtet. Die Wunden, die der siebenjährige Krieg geschlagen, suchte er nach Kräften zu heilen, indem er die herabgekommenen Guntsbesißer und Fabrikanten mit beträcht-lichen Geldsummen unterstüßte, ihnen auf mehrere Jahre die Steuern erließ und das Los der Bauern erleichterte. Durch Genauigkeit im Staatsaushalt, durch Vermin-derung der Besoldung der höheren Beamten, sowie durch Einfachheit der Hofhaltung wurden große Summen erspart, während es ihm anderseits durch Hebung der Land-wirtschaft und Gewerbtätigkeit möglich ward, die Abgaben zu erhöhen, ohne doch die Untertanen zu drücken.

15.

    (c) Als sie den Greis wahrnahm, wie er ruht' in atmendem Schlummer, Stand das Mütterchen auf vom binsenbeflochtenen Spinnstuhl, Langsam, trippelte dann auf knirschendem Sande zur Wanduhr Leis' und knüpfte die Schnur des Schlaggewichts an den Nagel,

Daß ihm den Schlaf nicht störte das klingende Glas und der Kuckuk.
Jetzo saß sie hinaus, wie die stöbernden Flocken am Fenster
Rieselten, und wie der Ost dort wirbelte, dort in den Eschen
Rauscht' und die Spuren verwehte der hüpfenden Krähen am Scheuntor.
Lange mit ernstem Gesicht, ihr Haupt und die Hände bewegend,
Stand sie vertieft in Gedanken und flüsterte halb, was sie dachte:
„Lieber Gott, wie es stürmt; und der Schnee in den Gründen sich aufhäuft!
Ärmer, wer jetzt auf Reisen hindurch muß, ferne der Einkehr!
Auch wer, Weib zu ernähren und Kind, auswandert nach Reisholz,
Hungrig oft und zerlumpt! Kein Mensch wohl jagte bei solchem
Wetter den Hund aus der Türe, wer seines Viehs sich erbarmet."

5.   2. Von fünf der folgenden Substantive bilden Sie je drei Adjektive mit ihren
Bedeutungen :—Ernst, Seite, Ehre, Heim, Geist, Wunder, Hof.

10.   3. Mit fünf der folgenden Partizipien bilden Sie je einen Satz (mit Bedeutung)
zur Veranschaulichung ihres bildlichen oder metaphorischen Gebrauches und ihrer Kon=
struktion :—erpicht, versessen, aufgelegt, vernarrt, aufgebracht, verschollen, bestürzt.

15.   4. Ins Deutsch zu übersetzen.

     (a) She could quite well have completed her task even without her
teacher having shown her how to do it.

     (b) All honest men have a genuine dislike to accepting anything
that might savour in the least of bribery.

     (c) There is all the difference in the world between a reproof con-
veyed in good natured raillery and one of biting sarcasm.

     (d) Although the clerk has undoubtedly acted against the rules
of the office, his superiors seem disposed to take a lenient view
of the matter.

     (e) I feel sure all will yet come right in the end ; do not, therefore,
take the thing to heart too much.

COMMERCIAL GERMAN.

Wednesday, 26th June.—4 to 5.30 P.M.

The whole of this Paper should be answered.

25.   1. Translate into English :—

Herren Gebr. Behrens,   Leeds, den 3. Januar 1906.
      Lübeck.

Wir haben das Vergnügen Ihnen hiermit Abschrift unseres bis 31. Dezember a. p.
abgeschlossenen Kontokorrents zu übersenden. Sie werden bei Durchsicht desselben
finden, daß Ihnen ein Saldo von

£114   5   0

gut kommt, zu dessen Ausgleichung wir eine Tratte, auf Schmidt & Co. dort,
beischließen.

Als Beweis unserer Zufriedenheit mit Ihren freundlichen und erfolgreichen Diensten
während des vergangenen Jahres werden wir bei Eröffnung der Schifffahrt Gelegenheit
nehmen, Ihnen einige Kisten der neuesten Stoffe zu konsignieren, die, wie wir glauben,
dem Frühjahrsbedarf entsprechen und sich auf Ihrem Platze schnell verkaufen werden.
Wir empfehlen uns Ihnen, mit freundschaftlicher Hochachtung,

                         Ergebenst,
                          Smith & Roberts.

35.   2. Answer in German the foregoing letter, acknowledging receipt of
the enclosed documents. As regards the former of these, say that it has
been examined and found correct ; also that the draft on Schmidt & Co.
remitted by your friends has been duly honoured, and the amount passed to

the credit of their account from date.   Add that you are pleased with the prospect of receiving further consignments from them, which you have no doubt wil prove satisfactory, and conclude with best wishes for a prosperous New Year.

16.

3. Mention briefly in German the principal articles of export to Great Britain from the following places :—

> *New Orleans, Trinidad, Pernambuco, Montevideo.*

24.

Either—

4. Translate the following Market Report :—

Baumwolle. Die Umsätze am Liverpooler Terminmarkt waren nicht umfangreicher Natur und die Preise bewegten sich zunächst, im Einklang mit amerikanischen Meldungen, rückwärts. Die Nachfrage nach späteren Lieferungsfristen ist, namentlich für kontinentale Rechnung, besonders gut und mangels Angebots erfuhren sie eine nicht unbeträchtliche Besserung, während die näheren Termine ihre anfänglichen Kursverluste mehr als einholten. Das Platzgeschäft in amerikanischem Rohprodukt bleibt weiter lebhaft. Brasilianer wurden gut umgesetzt und schließen auf ihrem vorwöchigen Kurs. In Peruanern lag etwas mehr Material vor und die Umsätze waren ziemlich gut bei unveränderten Preisen. Egyptisches Produkt war in guter Nachfrage und schließt durchgehends ⅛d. höher. Ostindier mußten bei mässigen Umsätzen ₁/₁₆d. weichen.

Seide. Vom New-Yorker Rohseidenmarkt wird lebhafter Verkehr gemeldet. Die Preise haben sich befestigt. Es fanden gute Abschlüsse statt.

Or—

5. (a) Translate into English :—

(1) Der Wirkungskreis des Agenten wird auf den hiesigen Platz beschränkt.

(2) Die Waren wurden unter Steuerverschluß verkauft.

(3) Unsere Bedingungen sind folgende:—

    (*a*) Für Zahlungen und Inkassi auf hiesigem Platz ⅛ % ; für auswärts zahlbare oder einzuziehende Effekten ¼ % Provision.

    (*b*) Gegenseitige Zinsrechnung zu 5 % pro anno.

    (*c*) Wir trassieren für unsere Vorschüsse in Zweimonatswechseln, vom Zahlungstage an gerechnet.

    (*d*) Briefporto und Courtagen gehen Ihnen zu Last.

(*b*) Translate into German :—

(1) The steamer has not yet been cleared at the Custom-house.

(2) This firm has failed for a considerable amount.

(3) Please address Captain Miller's letters to the care of the shipbrokers.

(4) This item should be passed to sundries account.

GAELIC.

Thursday, 27th June.—2 to 5 P.M.

[N.B.—*Candidates who took Gaelic in 1906, and who now desire to get additional marks* (within the maximum of 80) *for the King's Scholarship Examination of 1907, should omit questions* 1 *and* 2 *in this paper, and should take instead questions* 8 *and* 9.]

22.

1.—Translate into English :—

Bidh mi a nis, mata, a' fàgail mo bheannachd agaibh, agus tha mi 'nur comain air son na thug sibh dhomh d'ur seanachas. Agus ged bha mise labhairt mar rinn mi, cha ruig sibh a leas 'ur barail a bhi na's mios' orm.

Tha fhios aig a h-uile duine d'an aithne mi gu'm bi moran de chainnt fhaoin a' ruith air mo theangaidh. Cha'n 'eil fios agam co-dhiù rugadh an fhàilinn so leam no dh' òl mi i le bainne cioch mo mhàthar, ach is eagal leam nach dealaich i rium gus an teid mi fo'n talamh. Is duilich an car a theid 's an t-seana mhaide thoirt as. Ach ged tha sin a muigh, tha dòchas agam nach 'eil e stigh ; ged tha gòraiche 's an teangaidh, tha mi an dòchas nach 'eil moran lochd 's a' chridhe. 'S e Eachann Gorm a their iad rium, agus nach i a' Bheurla air sin *True Blue?* Agus a dh' aindeoin na thuirt mi a nochd, is luaithe gu mòr a dhùraichdinn fasgadh mo thighe agus blàths mo theine do choigrich bhochda ann an cruaidh-chàs, na shininn làmh eucorach gu ni sam bith a bhuineadh dhaibh a ghlacadh le foill no le fòirneart.

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

    (a) Is toigh leam a' Ghàidhealtachd, is toigh leam gach gleann,
         Gach eas agus coire an dùthaich nam beann ;
         Is toigh leam na gillean 'n an éideadh glan, ùr,
         Is boineid Ghlinn-garaidh mu'n camagan dlùth.
         Is toigh leam a' Ghàidhlig, a bàrdachd 's a ceòl,
         'S tric thog i a nìos sinn 'nuair bhiomaid fo leòn ;
         'S i dh'ionnsuich sinn tràth ann an làithean ar n-òig',
         'S nach fàg sinn gu bràth gus an luidh sinn fo'n fhòid.

    (b) Tha gach beinn, gach cnoc, 's gach sliabh,
         Air am faca sinn thu triall,
         Nis air call an dreach 's am fiamh,
         O nach tig thu chaoidh nan cian.
         Bha 'n t-àl òg nach fac' thu riamh,
         'G altrum graidh dhuit agus miadh ;
         Ach thuit an cridhe nis 'n an cliabh,
         O'n a chaidil thu gu sìor.

20.   3. Reproduce, in *Gaelic,* the story read out.

20.   4. Translate into Gaelic :—

The Highlanders returned, weary and disheartened, to their former position about seven o'clock in the morning, when some of them immediately lay down to sleep and others went away in search of something to eat. So scarce was food at this time that the Prince himself, on retiring to Culloden House, could obtain no better refreshment than a little bread and whisky. He felt the utmost anxiety regarding his men, whose strength was being rapidly reduced by hunger and cold ; and he therefore gave orders, before seeking repose, that the whole country should be thoroughly searched for provisions. His orders were not without effect. A large quantity of barley was found and at once ground into meal, but the poor famished soldiers never had a chance of tasting the bread, for the hour of battle came before it could be baked.

8.   5. Combine the following Prepositions with the Personal Pronouns, Singular and Plural :—*air, do, de, ri.*

6.   6. Translate *any three* of the following sentences into idiomatic Gaelic :—
What do you wish me to do ? I care not whether he goes or stays. My brother wrote to me last week. The sooner he comes the better. I shall call in passing.

6.   7. Express, in English, the meaning of *any three* of the following sentences (mere translation of the words will not suffice) :—Is fhada ghabh e bhuam. Cha b'fhiach leis sin a dheanamh. Tha beul an anmoich ann. Ruigidh each mall muileann. 'S e farmad a ni treabhadh.

[To be substituted for Questions 1 and 2 by those Candidates only who took Gaelic in 1906, and who now wish to obtain additional marks for the King's Scholarship Examination of 1907. See note N.B. at the head of this paper.]

22.   8. Translate into English :—
Na smaointich gur Cùilteach[1] bochd, gearanach, mise. Bha mi am latha fhéin cho déidheil air cridhealas ri aon Ghàidheal ad dhùthaich. Bha mi

---

[1] Culdee.

meamnach, sunndach, àrd-thogarrach. Cha do chuireadh riamh sprochd no dubhachas as mo leth. Ach tha mi nis a' fàs sean. Tho mo chiabhan air glasadh, agus ged nach faodar a ràdh gur seann duine mi, cha'n ann a' dìreadh na beinne tha mi. Tha beachd ùr agam 'ga fhaotainn gach latha air an t-saoghal chaochlaideach so. Tha cridhealas m'òige fuaighte am chuimhne ri companaich m'òige, agus iadsan cha'n 'eil ann. Is iomadh tir anns a bheil iad 'n an luidhe, agus is fad' o chéile gach uaigh anns a bheil iad air an càramh. Tha mo dhùthaich air faotainn, ach cha'n 'eil mo dhaoine. Iarram iad, ach 's e am fòid gorm a chomharraicheas e mach iad. Dh' fhalbh iadsan, agus falbhaidh sinne ann an latha no dhà. Cha'n àm gu cridhealas, agus an saoghal a' sleamhnachadh as ; cha'n fhearas chuideachd a bhi seasamh air stairsnich a' bhàis.

18.   9. Translate into English one of the two following quatrains :—

(a)   Tha Cabar-féidh[1] an dlùths do réir dhuit,
        Nach biodh éisleineach 's an stri,
        Fir nach obadh leis 'g an togail.
        Dol a chogadh 'n aghaidh Rìgh ;
        Bu cholgail, faiceant', an stoirm feachdaidh,
        Armach, breacanach, air thì
        Dol 's an iomairt, gun bhonn gioraig,
        'S iad nach tilleadh chaoidh fo chìs.

(b)   Cia mar a dheanadh e òran,
        Gun eòlas, gun tuigse nàduir ?
        O nach deanadh e air dòigh e,
        'S ann bu chòir dha fuireach sàmhach :
        Bruidhinn ghlugach 's cuid di mabach,
        Moran stadaich ann am pàirt di ;
        Na ni e phlabartaich chòmhraidh,
        Cha bheò na thuigeas a Ghàidhlig.

GAELIC.

Thursday, 27th June— 2.45 P.M.

This paper must not be seen by any Candidate.

To be read out twice 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 from memory. No notes may be made while it is being read.

Before commencing to read it, the Supervising Officer should 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.

THE SHEPHERD'S DOG.

A really good collie is worth a great deal to his master ; in fact, the dog is the true shepherd, for he does most of the man's work for him. A North Country shepherd once bought some sheep in Edinburgh, and on the way home lost two of them. This was not only a misfortune and a reproach to him, but a slur upon his dog.

Several days after, the shepherd, whose name was John, learned that a farmer who lived near the highway had found two sheep. He set off at once with the dog to see if they were his. The farmer asked him how they were marked.

As John had bought sheep from many sellers, he could not inform the farmer ; who said,—

"Very well ; then it is only right that I should keep the sheep."

"It's a fact," replied John, "that I cannot tell the sheep ; but if my dog can, will you let me have them ?"

---

[1] The Chief of the Mackenzies.

The farmer, though hard, was honest, and having little fear of the trial, had all the sheep upon his farm turned into a large park. John's dog also was turned into the park, and it immediately singled out first one and then the other of the strays.

That afternoon John was offered forty pounds for his collie, but he refused it, saying, "He is a good dog, and he's worth more than that to me. He's a far better shepherd than I am."

SPANISH.

Thursday, 27th June—2 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.

15.   1. (a) Translate into English :—

Hay una ciudad en España, la segunda en importancia después de la capital, la primera sin disputa en el camino de los adelantos, para la cual no tienen sino elogios cuantos la han visitado, siquiera una vez, cuya belleza, progreso material y refinada cultura proclaman unánimes nacionales y extranjeros y que, sin embargo, no tiene la inmensa celebridad que merece por todas estas circunstancias. Esta ciudad á que me refiero es Barcelona.

Difícilmente se encontrará en España un pueblo donde la afición ó, por mejor decir, el hábito del trabajo esté más arraigado que en el pueblo catalán ; apenas se encontrará entre todas nuestras capitales una más activa, más industriosa, que Barcelona ; el amor al trabajo es allí sinónimo de amor á la vida ; y como sólo en él cifran su bienestar presente y su risueño porvenir, todo catalán, á medida que más ambiciona los goces y los placeres de la vida, más redobla su pasión por el trabajo, que no es otra cosa, á mis ojos, que su anhelo de llegar pronto á una posición holgada y feliz, por el camino de lo lícito y de lo honroso.

Los barceloneses creen, y creen bien, que la vida debe compartirse entre el trabajo útil y el placer honesto ; que nada es más natural y conveniente que trabajar la semana entera para gastar, el domingo, la cuarta parte del producto de su trabajo, proporcionando descanso al cuerpo y solaz al alma.

15.   (b) La comida se trajo aquel día de la fonda más cercana, y los niños, que habían pasado todo el día en la casa de Caballero, vinieron por la noche. En los sucesivos el gozo, el orgullo, la hinchazón de los Ramírez por las ventajas de su nuevo domicilio se manifestaban en el acto de enseñarlo á los amigos que les visitaban. Don Francisco y su señora acompañaban las visitas por toda la casa, mostrando pieza por pieza, sin omitir ninguna, y encareciendo la holgura y la capacidad de cada una.

"Es la mejor casa de Madrid—decía con la nariz ahuecada, Rosalía, guiando por aquellos laberintos á la señora García, su amiga. Yo digo que si la hubiéramos fabricado nosotras, no habríamos repartido mejor todas las piezas."

Vea Vd. la alcoba, Cándida . . . ! qué hermosa pieza y qué abrigada ! No entra aquí el aire por ninguna parte.

— Mire Vd. . . . rara vez se ve un estucado más bien puesto.

— En este otro cuartito es donde me lavo. Es pequeñito pero sobra espacio.

— Ya lo creo que sobra. Note Vd. estos pasillos. Si esto parece la Plaza de Toros. . . . Lo menos tienen vara y media de ancho. Ahora vea Vd. qué comedor, qué desahogo. Cabe perfectamente la mesa de ocho personas. En la otra casa estábamos tan estrechos que, cuando la criada pasaba con los platos, Ramírez tenía que levantarse.

25.   2. Translate into Spanish :—

From Malaga to Granada there are two roads, and several ways of accomplishing the journey, but, after every enquiry, we found the easiest and best was to hire a carriage to take us to Loja, which we could reach

by starting at 8 a.m. as soon as the diligence which left at six, if we had sufficient relays of mules.

This therefore we did, and leaving all our heavy baggage at the Alameda Hotel, in Malaga, we started with sufficient for a fortnight, in a kind of omnibus with eight mules, changed three times en route, and arrived at Loja at 9.30 p.m. We paid 9*l.* for the carriage.

The scenery the whole way is magnificent. The view of the *vega*, or plain, of Malaga, as it burst upon us every now and then was beautiful ; it was nearly two hours before we quite lost sight of Malaga.

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

PART II.

8. 4. State the general rules concerning the position of adjectives in Spanish, giving some examples. Mention some adjectives which drop the final *o* when preceding a noun masculine singular.

8. 5. Give the meaning and explain the use of the following words :—*por* and *para* ; *ahí* and *allí* ; *ante*, *antes*, and *adelante* ; *demás* and *además*.

14. 6. (*a*) Translate into English the following sentences, commenting on the grammatical construction of the words in italics :—

El ruiseñor canta *lo más clara y hermosamente* del mundo.
Vd., *según parece*, es partidario del Gobierno.
El asunto que Vds. me han fiado *se lo he arreglado* como he podido.
Cuando *lleguemos* á la fonda empezamos á comer—cuando *lleguemos* á la fonda, empezaremos á comer.

(*b*) Translate into Spanish :—

What is the day of the month ?
One is always being asked for money in this place.
There is no doubt that he will some day become a great man.
It is more than three weeks since I saw him.

SPANISH.

Thursday, 27th 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.

One wet day a German arrived at an inn and, going into the parlour, took off his overcoat and placed it at the fire ; then he went to the window to look out. An old Dutchman who was sitting in the room smoking a pipe, turning to the German, said, "What is your name, Sir ?" The German, offended at the familiarity of the Dutchman, at first gave no answer. After a short time the Dutchman repeated his question. This time the German, in a sharp tone told him his name. " Well, Mr. So and So," said the Dutchman, " your coat is burning." " What," exclaimed the German, " if you saw it burning, why did you not tell me sooner ? " " In my country," answered the Dutchman, " it is not considered good manners to speak to people without knowing their names."

MATHEMATICS.

LOWER GRADE—I.

Wednesday, 19th June.—11 A.M. to 1 P.M.

Candidates should answer only *six* questions, namely, Nos. 1, 2, 3, 4, and any two of the other five questions. *All* the diagrams should be accurately drawn, and, where geometrical constructions are employed,

10.   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. *A* and *B* are two places on the same side of *CD*, the straight bank of a river ; *AC* and *BD*, the perpendicular distances of *A* and *B* from the bank, are 16 and $5\frac{1}{2}$ miles, and *CD* is 10 miles.

      (*a*) Find the distance from *A* to *B* by means of an accurate drawing to scale.

      (*b*) Show that the distance may also be obtained by calculation from a rough drawing, and find it in this way.

15.   2. Draw an equilateral triangle *ABC*. Find a point *D* at the same distance from *A* and *C* that *B* is ; and also a point *E* at the same distance from *A* and *B* that *C* is.

Prove that *D*, *A*, *E* are in the same straight line.

15.   3. Prove that equal triangles on the same side of the same base are between the same parallels.

If two sides of a triangle are bisected, prove that the straight line which joins the points of bisection is parallel to the base and equal to half of it.

15.   4. The radius of a certain circle contains *r* units of length ; a straight line cuts the circle, forming a chord which contains *c* units of length ; the perpendicular drawn to the line from the centre of the circle contains *p* units of length. Prove the relation

$$c = 2\sqrt{r^2 - p^2}.$$

From this relation show that if the distance of the line from the centre of the circle is made greater, the length of the chord will be made less.

When the distance of the line from the centre is equal to the radius, what becomes of the chord, and what is the line then called ?

Answer TWO *questions only of the following five. If more than two questions are attempted, all the answers except* TWO *must be struck out. If this rule is neglected, a deduction will be made from the marks awarded.*

15.   5. A horse, grazing in a field, is attached by a rope, 4 yards long, to a straight bar, 8 yards long, the rope being fastened to a ring that can slide from end to end of the bar. Draw, to the scale of half an inch to the yard, a figure representing the part of the field over which the horse can graze.

Show that your figure represents an area equal to a circle of 8 yards diameter, together with a square of side 8 yards.

Find this area in square yards, assuming that the area of a circle is $3\frac{1}{7}$ times the square on its radius.

15.   6. Draw a square *ABCD*. Draw any two straight lines through *A*, passing outside the square. Draw perpendiculars to these lines from *B*, *C*, *D*, and measure their lengths.

What relation appears to exist in both cases between the length of the perpendicular from *C* and the sum of the lengths of the two other perpendiculars?

Prove that this relation is always true.

15.   7. If the square on one side of a triangle is equal to the sum of the squares on the other two sides, prove that the triangle is right-angled.

Taking the case of a triangle whose sides are 3, 4 and 5 units in length, apply this theorem to ascertain whether the top right-hand corner of the sheet on which you write your answer is accurately a right angle, stating clearly what measurements you make, and what conclusion you draw.

15.   8. *ABC* is a triangle, and *D* is the mid-point of *BC* ; *G* is a point in *AD* such that *AG* is two-thirds of *AD*. Prove that the triangles *BGC*, *CGA*, *AGB* are equal in area.

Prove that if *BG* is produced to meet *AC* in *E*, the triangles *ABE*, *CBE* are equal in area.

15.   9. From a point A two straight lines are drawn to a circle, whose centre is C. The first cuts it at P and Q, the second touches it at T. If $AP = \frac{2}{3}$ inch, $AQ = 3$ inches, and $AC = 2\frac{1}{2}$ inches, calculate the lengths of AT and CT, illustrating your answer by an accurate diagram.

State, without proof, the geometrical propositions on which your results depend.

MATHEMATICS.

LOWER GRADE—II.

Wednesday, 19th 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.

12.   1. (1) If
$$a = 4,\ b = 3,\ c = 2,$$
find the numerical value of
$$\frac{a\{bc - (b - c)\ (c - a)\}}{(a - 2b)\ (b - 2c)}$$

(2) Simplify
$$\frac{(2x - 1)\ (4x^2 + 2x + 1) - 4\ (x + 2)\ (3x + 2) + 5}{(x + 1)\ (x - 3)}.$$

15.   2. Show that $x - 1$ is a common factor of $x^3 - 3x + 2$, and $x^3 + 3x^2 - 4$. Resolve each of these expressions into three factors, and find another common factor.

15.   3. Solve the equations :—

(1) $\dfrac{1 - 2x}{5} = \dfrac{3x + 1}{4} - \dfrac{5x - 1}{3}$;

(2) $\dfrac{x - a}{b} = \dfrac{x + b}{a} - 2$;

(3) $6x^2 - 5x - 6 = 0.$

18.   4. Draw on squared paper the lines represented by the following equations, taking an inch as unit, and plotting four points on each line :—
$$x + 2y = 4,$$
$$x - 2y = 1.$$
Find the common point from your figure, and verify your result by solving the simultaneous equations.

Answer two questions only of the following five. If more than two questions are attempted, all the answers except two must be struck out. If this rule is neglected, a deduction will be made from the marks awarded.

15.   5. Find the coefficient of x^3 in the product of the factors $x^3 - x^2 + 2x + 1$ and $x^2 - 3x - 4$.

Resolve into elementary factors
  (a) $4 - x\ (5 - x)$,
  (b) $3\ (x - 1)\ (x - 2) - 2\ (x^2 - 1)$.

15.   6. If p ounces of salt are placed into a vessel along with q ounces of water so as to form brine, and r ounces of the brine are further diluted with s ounces of water ; find how much salt is contained in one ounce of the diluted brine.

15.   7. A straight line AB is bisected at C, and divided unequally at D ; if $AD = x$, $DB = y$, express CD in terms of x and y.
    Hence find x and y when $AB = 10$ inches, and the rectangle contained by AD and DB is 8 times the square on CD.

15.   8. A and B work together for 3 days, B doing as much work in 4 hours as A does in 3. After this, B, working alone, finishes the work in 1 day. How long would A have taken to do the whole work by himself?

15.   9. P and Q are two quantities, whose magnitudes vary but are always connected by a certain equation. The following table gives four corresponding values of P and Q :—

P	·8	2	3·8	6
Q	2·4	3	3·9	5

    (1) Plot 4 points on squared paper showing the 4 pairs of values of P and Q, taking 1 inch as unit.
    (2) Assuming that these 4 points lie on a straight line, find the value of P when $Q = 4\cdot4$?
    (3) If P has any value x, and y is the corresponding value of Q, express y in terms of x.

MATHEMATICS.

Lower Grade—III.

Thursday, 20th June.—2 p.m. to 3 p.m.

6.   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.

9.   1. Find the simple interest on £417 10s. for 7 years and 4 months at $4\frac{1}{4}$ per cent. per annum.

9.   2. (1) Write out a list of the numbers between 100 and 120 which are prime numbers.
    (2) Find the greatest common factor of 1155, 2145, 3003.

9.   3. Express
    (1) $1\frac{4}{5} + 2\frac{1}{6} - 3\frac{3}{4}$ as a single vulgar fraction, and
    (2) $\dfrac{7\cdot565 + 4\cdot165}{7\cdot565 - 4\cdot165}$ as a single decimal.

9.   4. A man left one-third of his property to his wife, one-fourth to his son, one-fifth to his daughter, and £386 15s. remained for other purposes. Find the amount of the property.

9.   5. (1) An acre contains 10 square chains, and a chain is 22 yards in length ; find the number of square yards in an acre.
    (2) The chain is divided into 100 equal links. If a field measures 15 chains 25 links in length and 13 chains 46 links in breadth, find its area in square chains.
    (3) Write down the number of acres in the field correct to the nearest acre.

9.   6. (1) The length of a cistern is 5·4 metres, its breadth 4·7 metres, and its depth 3·8 metres, find the number of cubic metres of water it will contain.
    (2) If a cubic centimetre of water weighs a gram, find in kilograms the weight of the water contained by the cistern.

MATHEMATICS.

HIGHER GRADE—I.

Wednesday, 19th June.—11 A.M. to 1 P.M.

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 con-

10.   structions 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 mis-
apprehension as to what is really required.

15.   1. Find a point equally distant from three given points which are not
in the same straight line. State and prove your construction.

Draw two straight lines which intersect, and take two points in the same
plane but not in the straight lines. Find all the points which are equi-
distant from the two points, and are also equidistant from the two straight
lines, stating your construction without proof.

15.   2. If a straight line AB be divided equally in C and unequally in D,
state, and prove by means of a figure, the connection which exists between
the squares on AD, DB, AC, CD.

If AC contain x units of length, and CD contain y units, state the
algebraic identity corresponding to the geometrical theorem.

15.   3. Prove that the sum of two opposite angles of a quadrilateral inscribed
in a circle is equal to two right angles.

Four points, A, B, C, D, are taken in order on the circumference of a
circle so that the sum of the arcs AB, CD is equal to half the circum-
ference. Prove that, if tangents are drawn at A, B, C, D, the quadrilateral
thus formed is one that can be inscribed in a circle.

15.   4. Assuming that the areas of similar triangles are in the ratio of the
areas of the squares on their corresponding sides, prove that the same
heorem is true for the areas of similar polygons.

The county of Perth occupies an area of 12·8 square inches in a map
in which the distance between Perth and Dunkeld is represented by 3·75
inches. Find the area occupied by the same county in another map, in
which the distance between these towns is 5·25 inches.

*Answer TWO of the following five. If more than two questions are
attempted, all the answers except TWO must be struck out. If this
rule is neglected, a deduction will be made from the marks awarded.*

15.   5. The distance from Edinburgh to either Aberdeen or Oban is 96 miles;
the distance from Inverness to either Aberdeen or Oban is 84 miles ; the
distance from Edinburgh to Inverness is 156 miles. Find the distance from
Aberdeen to Oban, by a diagram drawn on the scale of 24 miles to the inch.

Write down the expression for the area of a triangle in terms of its sides,
and apply it to find the area in square inches of the quadrilateral figure
formed by joining the points representing the four towns.

Examine whether this result agrees with your measurement of the
distance from Aberdeen to Oban.

15.   6. $ABCD$ is a parallelogram ; E, F are the mid-points of BC, CD.
Find, by measurement, the ratio in which the straight line BD is divided
by the straight lines AE, AF in your figure.

Prove geometrically that your conclusion is true.

15.   7. AB, CD are two chords in a circle ; P, Q are the mid-points of the
arcs AB, CD. Prove that the chord PQ makes equal angles with the
chords AB, CD.

15.   8. ABC is a triangle in which $AB = AC$; D, E are points in AC
and AC produced, such that the $\angle\,DBC = \angle\,CBE$. Prove that AC is a
mean proportional between AD, AE.

15.

9. $ABCD$ is one square face of a cube, each edge of which is two inches in length ; E is the corner diametrically opposite A ; and F is the mid-point of CE. Draw on your paper a triangle equal to the triangle ABF.

Find by calculation the lengths of AF, BF, correct to two decimal places.

Find the tangent of the angle between the planes ABF, ABC.

MATHEMATICS.

HIGHER GRADE.—II.

Wednesday, 19th 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.

9.

1. Verify that as far as 5 decimal places

$$\frac{1}{5} + \frac{1}{3 \times 5^3} + \frac{1}{5 \times 5^5} + \cdot \cdot \cdot$$

is equal to the sum of

$$\frac{1}{9} + \frac{1}{3 \times 9^3} + \frac{1}{5 \times 9^5} + \cdot \cdot \cdot$$

and

$$\frac{1}{11} + \frac{1}{3 \times 11^3} + \frac{1}{5 \times 11^5} + \cdot \cdot \cdot$$

17.

2. Find the complete solution of the simultaneous equations,
$$x + y = 11, \quad xy = 30.$$
Verify your solution graphically.

18.

3. If m and n are positive integers prove that
$$(x^m)^n = x^{mn}.$$
Hence, show that if a similar relation is to hold good when m is a fraction say $\frac{2}{3}$, we must interpret $x^{\frac{2}{3}}$ as $\sqrt[3]{x^2}$.

Prove that
$$\sqrt[5]{x^3} = \sqrt[10]{x^6}.$$

16.

4. Find an expression for the sum of n quantities in geometric progression of which the first term is a and the common ratio r.

Find the sum of 5 quantities in geometric progression of which the first is 4 and the last $\frac{1}{4}$.

Answer TWO *of the following five. If more than two questions are attempted, all the answers except* TWO *must be struck out. If this rule is neglected, a deduction will be made from the marks awarded.*

15.

5. The hypotenuse of a right-angled triangle is 2·89 inches and the perpendicular drawn to it from the right angle is 1·2 inches ; find the sides.

15.

6. Draw in one figure the graphs of—
     (1) $y = x^2 - \frac{3}{2}x - 3$,
     (2) $y = \frac{5}{3}x - 7$,
     (3) $y = -\frac{2}{3}x - \frac{2}{3}$,
from $x = -2$ to $x = 3$, taking one inch as unit.

Find from your figure the points in which the graphs intersect.

15.

7. If
$$\sqrt{x} + \sqrt{y} + \sqrt{z} = 0,$$
prove that
     (1) $x^2 + y^2 + z^2 = 2\,(yz + zx + xy)$,
     (2) $x + y + z = 2\,\sqrt{yz + zx + xy}$.

15.

8. A train completed a journey of 273 miles in a certain time. If its average speed had been one mile per hour quicker, it would have saved 10 minutes over the whole journey. Show that its average speed was a little under 40 miles per hour.

15.

9. Define the logarithm of a given number to a given base, and show from your definition that the logarithm of 1000 to the base 8 is between 3 and 4.

A metre is 39·37 inches, a litre is a cubic decimetre. Use logarithms to find, as nearly as your tables permit, the number of cubic inches in a litre.

MATHEMATICS.

HIGHER GRADE.—III.

Thursday, 20th 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. Give a definition of the cosine of an angle suitable to angles of any magnitude.

If $\tan A = 2 \sin A$, find all possible values of A less than 360°.

15.

2. If θ is acute, prove that $\cos \theta = \sin (90° - \theta)$.

Use the table of sines to make a table of the values of $\cos \theta$ correct to two decimal places when $\theta = 10°, 20°, 30°, \ldots . 90°$.

Hence draw the graph of $\cos \theta$, from $\theta = 0°$ to $\theta = 90°$, taking a horizontal inch to represent 10° and two vertical inches to represent unity.

15.

3. Standing at a horizontal distance of 240 feet from the base of a monument, a man observes the elevation of the top of the monument to be 36°. Assuming that the man's eye is 5 feet from the ground, calculate the height of the monument to the nearest foot, and verify by a diagram drawn accurately to scale.

15.

4. Assuming that

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

deduce an expression for $\sin \frac{1}{2}A$ in terms of a, b, c and s; where $2s = a + b + c$.

If $a = 7$, $b = 8$, $c = 13$, find the size of the largest angle of the triangle.

Answer TWO *questions out of the following five. If more than two questions are attempted, all the answers except* TWO *must be struck out. If this rule is neglected a deduction will be made from the marks awarded.*

15.

5. Construct an angle of 30°, giving a geometrical proof of the correctness of your construction.

Calculate the values of sin 30°, cos 30° and tan 30°, correct to five decimal places, giving your working in full detail.

State how far your results agree with those of the four place tables.

15.

6. Assuming the formulæ for $\cos (A + B)$ and $\cos (A - B)$, prove that

$$\cos x + \cos y = 2 \cos \frac{x + y}{2} \cos \frac{x - y}{2} .$$

Use this formula to find a value of A, which satisfies the equation,

$$\cos (A + 30°) + \cos (A - 30°) = \frac{3}{5}.$$

15.

7. B and C are two places such that the distance between them cannot be measured directly. The distances of B and C from a third place A are 11 and 21 miles respectively, and the angle BAC is 86° 44′.

Using the formula,

$$\tan \frac{1}{2}(B - C) = \frac{b - c}{b + c} \cot \frac{1}{2}A,$$

find the angles B, C, and the distance BC.

15.   8. Prove that $\cot 2\theta = \frac{1}{2}(\cot \theta - \tan \theta)$.
Find two solutions of the equation,
$$\cot \theta - \tan \theta = 2.$$

15.   9. Prove that in any triangle ABC,
(1) $a = b \cos C + c \cos B$;
(2) $2R = \dfrac{a}{\sin A} = \dfrac{b}{\sin B} = \dfrac{c}{\sin C}$;
where R is the radius of the circumscribing circle.

ALGEBRA.

Honours Grade.

Wednesday, 19th 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 mis-apprehension 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. Prove that the arithmetic mean of any number of positive quantities is greater than the geometric mean.
Find the least value of
$$15x + 10y + 6z$$
when
$$xyz = 30,$$
all the symbols denoting positive numbers.

15.   2. If $\phi(x)$ be any rational integral function of x, prove that it is always possible to determine A and B so that
$$\phi(x) + Ax + B$$
shall be divisible by
$$x^2 + c^2.$$
Hence or otherwise show that
$$x^9 + 1 = Ax + B + (x^2 + 1)\,\psi(x),$$
and determine
$$A, B, \text{ and } \psi(x).$$

15.   3. Prove that
$$1 + \frac{1}{2} + \frac{1}{3} + \frac{1}{4} + \ldots$$
is divergent, and that
$$1 + \frac{1}{2^2} + \frac{1}{3^2} + \frac{1}{4^2} + \ldots$$
is convergent.
Show that in the last-named series the sum of the odd terms is three times the sum of the even terms.

Alternative Questions.

15.   4a. If P and Q are each products of $2n$ consecutive numbers, prove that the difference between P and Q is divisible by the sum of the greatest and the least of all the $4n$ numbers.

Or,

15.   4*b*. If *a* and *b* are the first and last terms in a series of *n*+1 terms in arithmetic progression, show that the sum of the series of *n* terms obtained by multiplying each of the first *n* terms by the next consecutive term is

$$\frac{1}{3n} \{ (n^2 - 1)(a^2 + b^2) + (n^2 + 2)\, ab \}.$$

15.   5*a*. Prove that the binomial theorem for a positive integral index.

Prove that

$$2^{x-1}(1 + 2^x) = 3^x + \frac{x(x-1)}{1 \cdot 2}\, 3^{x-2} + \frac{x(x-1)(x-2)(x-3)}{1 \cdot 2 \cdot 3 \cdot 4}\, 3^{x-4} + \ldots$$

Or,

15.   5*b*. Assuming the formulæ

$$\log(1 + x) = x - \frac{x^2}{2} + \frac{x^3}{3} - \ldots,$$

$$\log(1 - x) = -x - \frac{x^2}{2} - \frac{x^3}{3} - \ldots,$$

deduce the identity

$$\log(n+1) - \log n = 2 \left\{ \frac{1}{2n+1} + \frac{1}{3(2n+1)^3} + \frac{1}{5(2n+1)^5} + \ldots \right\}$$

Prove that

$$\frac{1}{9} + \frac{1}{3 \cdot 9^3} + \frac{1}{5 \cdot 9^5} + \ldots = \frac{1}{17} + \frac{1}{19} + \frac{1}{3}\left(\frac{1}{17^3} + \frac{1}{19^3}\right) + \ldots$$

and verify by calculation to five decimal places.

15.   6*a*. Show that

$$(a^2 + b^2)(c^2 + d^2)$$

can be resolved into the sum of two squares : and that

$$(a^2 + 3b^2)(c^2 + 3d^2)$$

can be expressed in the form

$$x^2 + 3y^2,$$

all the symbols denoting integers.

Express 1105 as the sum of two squares in four different ways.

Or,

15.   6*b*. If *OA* be any line, and $i^2 + 1 = 0$, find a graphic interpretation for $(\cos \theta + i \sin \theta)\, OA$; and deduce a construction for $(\cos \theta + i \sin \theta)^n OA$.

Hence prove Demoivre's theorem for a positive integral index.

GEOMETRY.

HONOURS GRADE.

Wednesday, 19th June.—2 P.M. to 4 P.M.

All ordinary symbols and contractions are allowed.

All 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. Construct an isosceles triangle *ABC*, in which $\angle B = \angle C = 2 \angle A$.

If *O* and *I* are the centres of the circumscribed and inscribed circles of this triangle and *CO*, *CI* produced meet *AB* in *D*, *E*, prove that

$$AD = BE.$$

15.   2. Enunciate and prove the property of the nine-points circle.

Prove that the centroid, the orthocentre, the nine-points-centre and the circumcentre of a triangle are collinear, and find the ratios in which they divide the line joining them.

15.   3. Enunciate Ceva's and Menelaus' theorems.

ABC is a triangle, and the interior and exterior bisectors of the angles A, B, C meet BC, CA, AB in the points D, D', E, E', F, F', respectively; prove that D', E', F' are collinear.

Alternative Questions.

15.   4a. Prove that the volume of a pyramid is one-third the volume of a prism with the same base and altitude.

A triangular pyramid stands on an equilateral base, each side of which is 4 inches in length. Each of the slant sides of the pyramid is 7 inches in length, find its volume to the nearest cubic inch.

Or,

15.   4b. When are two figures said to be similar and similarly situated ?

Show that if two parallelograms are similar and similarly situated, there are in general two centres of similitude.

15.   5a. When is one figure said to be the inverse of another ?

Prove that a straight line inverts in general into a circle.

Construct and describe the figure formed by inverting the four sides of a square, regarded as finite straight lines, with respect to an angular point, and explain why the inverse figure is not closed.

Or,

15.   5b. Define the radical axis of two circles and prove that the radical axes of three circles taken two by two are concurrent.

Show that in the figure described in question 3 the circles described on DD', EE', FF' as diameters have a common radical axis.

15.   6a. $ABCD$ is a tetrahedron in which $AB=CD$, $AC=BD$, and $AD=BC$; prove that the plane angles enclosing each solid angle are together equal to two right angles.

Prove that each of those plane angles is acute.

Or,

15.   6b. If two circles touch externally, prove that their common tangent is a mean proportional between their diameters.

Three spheres of diameters 12, 12 and 4 inches are in contact with each other on a horizontal table. Show that a sphere of 3 inches diameter can be placed on the table so as to be in contact with the other three spheres.

TRIGONOMETRY AND LOGARITHMS.

Honours Grade.

Thursday, 20th 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 mis-apprehension 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. Prove that in any triangle

(1) $\tan \frac{1}{2}A = \sqrt{\dfrac{(s-b)\,(s-c)}{s\,(s-a)}}$,

(2) $r_1 \cot \frac{1}{2}A = r_2 \cot \frac{1}{2}B = r_3 \cot \frac{1}{2}C = r \cot \frac{1}{2}A \cot \frac{1}{2}B \cot \frac{1}{2}C$.

15. 2. If
$$\tan \theta = \frac{\sin \alpha + \sin \beta + \sin \gamma}{\cos \alpha + \cos \beta + \cos \gamma}, \text{ prove that}$$

(1) $\sin (\theta - \alpha) + \sin (\theta - \beta) + \sin (\theta - \gamma) = 0,$

(2) $\tan (\theta + \phi) = \dfrac{\sin (\alpha + \phi) + \sin (\beta + \phi) + \sin (\gamma + \phi)}{\cos (\alpha + \phi) + \cos (\beta + \phi) + \cos (\gamma + \phi)}.$

15. 3. By careful construction from your tables, draw the graph of $y = \tan \theta$ from $\theta = 0$ to $\theta = \pi$.

Draw also the graph of $y = \theta + 1$, and find from your figure a solution of the equation.
$$\tan \theta - \theta = 1.$$

Alternative Questions.

15. 4a. On AB a diameter of a circle, whose centre is O, a square $ABCD$ is described, P is any point on the circumference, $AB = 2a$, $\angle POA = \theta$. P is joined to the vertices of the square; PC, PD cut AB in S, T; perpendiculars to AB, through T, S meet PA, PB in Q, R.

(1) Prove that $QRST$ is a square, and that its side is
$$\frac{2a \sin \theta}{2 + \sin \theta}.$$

(2) Draw the graph of
$$x = \frac{\sin \theta}{2 + \sin \theta}$$
from
$$\theta = -\frac{\pi}{2} \text{ to } \theta = \frac{\pi}{2},$$
and thence, or otherwise, find what values of θ make $QRST$ greatest and least.

Or,

15 4b. Solve completely the equations
(1) $(1 + \tan \theta)(1 - \sin 2\theta) = 1 - \tan \theta.$
(2) $\sin 5\theta \cos 3\theta = \sin 6\theta \cos 2\theta.$
(3) $\sin x + \cos x = \sin \alpha - \cos \alpha.$

15. 5a. Prove that
$$\cos \frac{\theta + 2r\pi}{q} + \sqrt{-1} \sin \frac{\theta + 2r\pi}{q}$$
is one of the values of
$$\{\cos \theta + \sqrt{-1} \sin \theta\}^{\frac{1}{q}},$$
and show how to find the other $(q - 1)$ values.

If a is one of the imaginary roots of the equation $x^{13} - 1 = 0$, prove that the other 12 roots are $a^2, a^3, \ldots a^{13}$.

Or,

15. 5b. Sum to n terms the series
$$\cos \theta + \cos 2\theta + \cos 3\theta + \ldots$$
Prove that
$$\cos^4 \theta = \frac{1}{8}(\cos 4\theta + 4 \cos 2\theta + 3),$$
and employ this identity to find the sum to n terms of
$$\cos^4 \theta + \cos^4 2\theta + \cos^4 3\theta + \ldots$$

15. 6a. The sides of a quadrilateral are a, b, c, d; and 2ω is the sum of a pair of opposite angles. X is the area of the quadrilateral, and Y is the area of a quadrilateral inscribed in a circle with sides equal in order respectively to a, b, c, d; prove that $Y^2 - X^2 = abcd \cos^2 \omega.$

Or,

6b. Expand $(2 \cos \theta)^n$ in terms of $\cos n\theta$, $\cos (n - 2)\theta$, &c., distinguishing between the cases of n odd and n even.

Apply your result to the expansion of (1) $\cos^7 \theta$, (2) $\cos^8 \theta$.

ELEMENTS OF DYNAMICS.

Additional Mathematical Subject.

(Higher Grade and Honours.)

Tuesday, 25th June.—2 P.M. to 3.30 P.M.

10. *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.

12. 1. Explain what is meant by the relative velocity of one moving point with regard to another.

Two bodies are in motion with velocities 8 and 15. Find the velocity of the first relatively to the second
    (1) when they have the same direction ;
    (2) when they have opposite directions ;
    (3) when their directions are at right angles.

13. 2. Prove that when a body moves from rest with uniform acceleration in a constant direction,
$$v = at, \qquad s = \tfrac{1}{2} at^2.$$
If a is an acceleration of half a foot per second, show by graphs on squared paper the values of v and s, as t increases from 0 to 4 seconds.

13. 3. How much work is done against gravity in raising a mass of a ton through a height of 330 feet ?

Find the horse-power required to do this in 5 minutes.

13. 4. Enunciate the theorem known as the Parallelogram of Forces.

$ABCD$ is a quadrilateral figure. Find the resultant of four forces acting at a point when they are represented in magnitude and direction by AB, BC, CD, and AD.

13. 5. I have a thin flat slab of irregular outline. Explain an experiment by which we may easily find the approximate position of its centre of gravity.

ABC is a triangle and G is its centre of gravity. If the triangle BCG is removed, find by calculation the position of the centre of gravity of the remaining part of the triangle.

13. 6. Describe a common pump suited to pump water from a well at a depth of 20 feet.

If it were desired to raise water from the well to a tank 25 feet above the ground by a single pump, describe its construction, and explain by the help of diagrams the alterations which must be made in a common pump to enable it to do this.

13. 7. What is the connection between the pressure and volume of a gas when its temperature is unaltered ?

If a bladder contains 100 cubic inches of air at the atmospheric pressure when the water barometer stands at 30 feet, what will be the volume of the bladder after it has been lowered to a depth of 20 feet below the surface of a lake ?

HIGHER DYNAMICS.

Additional Mathematical Subjects.

(Higher Grade and Honours.)

Tuesday, 25th June.—2 P.M. to 3.30 P.M.

All the steps of the proofs must be given, and the work of the calculations should be shown 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.

15.   1. If three forces, acting on a rigid body, are in equilibrium ; find the necessary relations between them.

A heavy uniform bar is suspended from two points by two strings, which are tied to the ends of the bar ; and the bar is parallel to the line joining the two points, which are not in the same horizontal plane ; prove that the tensions of the strings are proportional to their lengths.

15.   2. Prove that the range of a projectile on a horizontal plane through the point of projection is

$$\frac{2\,V^2}{g}\,\cos a \sin a,$$

when V and a are the velocity and elevation with which it is projected.

If the initial velocity of the projectile was 120 feet per second ; and if, after four seconds, its height is 32 feet, find when it will again reach the level of the point of projection, and at what distance from that point ?

15.   3. State the principle of moments as applied to any number of forces acting in one plane on a rigid body, when there is equilibrium.

$AGBC$ is a straight but slightly flexible beam supported at each end A, C, and also at its centre, B ; the centre of gravity is at G and $AG = \frac{3}{4}\,AB$. The support at B can be adjusted so that the pressure on B can be either increased or diminished.   Find the greatest and least possible pressures at A.

Prove that the difference between the pressures at A and C is constant, and express it as a fraction of the weight of the beam.

Alternative Questions.

15.   4a. Two points P, Q describe circles with centres A, B and radii a, b, so that $AB = b$, and APQ is always a straight line.   If P move with uniform speed ma, prove that Q also moves with uniform speed, and find an expression for Q's speed.

Find also expressions for the accelerations of P and Q, and for the time each of them takes to complete a revolution.

Or

15.   4b. State the laws of Statical Friction.

A rough board can be turned about a horizontal axis in its surface. A triangular prism is placed on the board, three edges of the prism being parallel to the axis.   The other edges are 3, 4, 5 inches ; the smallest is in contact with the board, the largest is away from the axis.   The board is then tilted about the axis until the prism begins either to upset or to slip. Find whether it will upset or slip if the coefficient of friction is ·7.

15.   5a. State Boyle's Law.

In a cylindrical barometer tube there is a space of six inches above the mercury, which stands at 29 inches above the cistern.   It is suspected that some air has got into this space, and the tube is pushed 2½ inches deeper into the cistern with the result that the space above the mercury is now reduced to 4 inches.   Show that this result indicates the presence of air in the tube and find what the height of the barometer would have been if there had been no air in the tube.

Or

15.   5b. Describe the force pump.

If the area of the end of the plunger of a force pump be 3 square inches, the length of the stroke 18 inches, the height of the spout above the lower valve 20 feet, and the height of the lower valve above the water in the well 24 feet, find the work in foot-pounds done in a complete stroke of the piston backwards and forwards, taking a cubic foot of water as 1000 ounces

15.   6a. The centre of gravity of a motor-car is travelling in a curve of radius a on a flat road. The length of the axle is b, the height of the centre of gravity of the carriage is h, and the speed is v. Prove that, if v is greater than

$$\sqrt{\frac{abg}{2h}},$$

the inner wheels will begin to rise from the ground.

Or

15.   6b. Show that the acceleration of a particle P moving with uniform velocity V in a circle of radius r is V^2/r.

If Q be the foot of the perpendicular drawn from P to a fixed diameter, prove that the acceleration of Q is proportional to its distance from the centre of the circle.

What name is given to Q's motion ?

GEOMETRICAL CONICS.

Additional Mathematical Subject.

(*Higher Grade and Honours.*)

Tuesday, 25th 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 mis-apprehension as to what is really required.

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

15.   1. The tangent at any point P of a parabola meets the tangent at the vertex in Y. Prove that, if S is the focus, SYP is a right angle.

ABC is a given triangle. Find the focus of a parabola such that the three sides of the triangle are tangents to the parabola, BC being the tangent at the vertex.

15.   2. If TP, TQ be tangents to a parabola at P and Q, prove that the triangles PST, TSQ are similar.

If through P, Q, points on a parabola, straight lines PP', QQ' are drawn parallel to the axis meeting SQ, SP in P', Q', and the tangents at P, Q meet in T; prove that T is the centre of a circle which touches each side of the quadrilateral $PP'QQ'$.

15.   3. QQ' is a double ordinate to the diameter of a parabola drawn through P. From any point K on the parabola KL is drawn parallel to the axis, meeting QQ' in L. Prove that $QL \cdot LQ' = 4\,SP \cdot KL$.

15.   4. If P is a point on an ellipse and PN is the perpendicular to the axis major AA', prove that $PN^2 : AN \cdot NA' = BC^2 : AC^2$.

Show that this relation corresponds to the equation—

$$\frac{x^2}{a^2} + \frac{y^2}{b^2} = 1$$

15.   5. P and Q are points on a conic, whose centre is C. The tangent at Q meets CP produced at T and the line drawn through Q parallel to the tangent at P meets CP in V. Prove that $CV \cdot CT = CP^2$.

CP, CQ are semi-diameters of a conic and QV, PU are ordinates to CP CQ respectively. Prove that the triangles CPU, CQV are equal.

15.   6. Prove that the tangent to a hyperbola bisects the angle between the focal distances.

Show that it follows from the above theorem that each asymptote bisects the line joining the foci.

ANALYTICAL GEOMETRY.

ADDITIONAL MATHEMATICAL SUBJECT.

(*Higher Grade and Honours.*)

Tuesday, 25th June.—12 Noon to 1.30 P.M.

All the steps of the proofs must be given. Additional marks will be given for neatness, good style, and accurate diagrams.

10. 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 mis-apprehension as to what is really required.

Each answer should be accompanied by a careful diagram.

11. 1. If $(x_1 \, y_1)$, (x_2, y_2) are the co-ordinates of the points A, B; and C is a point on AB such that $AC : CB = m : n$; find the co-ordinates of C.

The co-ordinates of P and Q are $(0, 5)$ and $(15, -4)$; if the point R, whose co-ordinates are $(5, a)$ lies on PQ, find the value of a, and find in what ratio PQ is divided by R.

15. 2. Show that the equation

$$x \cos a + y \sin a - p = 0$$

represents a straight line.

Find what are the values of p and tan a in order that this equation may be identical with

    (1) $y = mx + c$,
    (2) $3x + 4y = 10.$

14. 3. Find the separate equations to the straight lines represented by the equation

$$3 (x^2 - y^2) = 8xy,$$

and prove that they are at right angles to each other.

14. 4. Obtain the equation to a circle whose radius is c, and whose centre is (a, b).

If (h, k) is a point (1) outside, (2) inside this circle, what geometrical magnitude is represented by

$$(h - a)^2 + (k - b)^2 - c^2 \, ?$$

15. 5. Find the co-ordinates of the points in which the straight line, $y = x + 2$ cuts the circle

$$x^2 + y^2 = 2 (x + 4).$$

Find also the equations to the tangents at these points.

13. 6. A and B are two points on the axis of x, equidistant from the origin O and ABC is an equilateral triangle. Show that a point, which moves so that the sum of the squares of its distances from the sides of the triangle is $\frac{3}{2}OA^2$, describes a circle.

Find the radius, and the co-ordinates of the centre, and draw the circle.

BOOK-KEEPING.

Friday, 21st June.—2 P.M. to 5 P.M.

25. *Marks are given for writing, ruling and style.*

15. 1. What is a Trial Balance ? What is its use ? To what extent may it be relied on ?

15. 2. Explain the difference between Real, Personal, and Nominal Ledger Accounts. Give two examples of each.

15. 3. John Gordon who has £5,000 in Bank agrees to purchase the business of Samuel White for £6,000, payable half in cash and half by bill at 3 m/d. The Assets and Liabilities he takes over are as follows :—

	£	s.	d.
Premises	1,200	0	0
Machinery	3,600	0	0
Goods	2,400	0	0
Loan from J. Smith	1,000	0	0
Account due to R. Jones	625	10	0
Account due by Brown Bros.	200	10	0

Frame the Journal Entries which Gordon would require to make to open his books.

30.

4. Record the following transactions of John Williamson in Cash Book and Journal. Only the transactions not suitable for the Cash Book are to be entered in the Journal.

1907.

				£	s.	d.
March	1.	Cash on hand		20	5	0
,,	,,	Bank overdraft		153	10	0
,,	4.	Paid (in cash) Freights repayable by James Scott		1	2	6
,,	6.	Received Bill at 3 m/d from Wilson & Co. for		337	10	0
,,	8.	Received from Brodie & Son and lodged in Bank		198	0	0
,,	,,	Discount allowed to them		22	0	0
,,	11.	Accepted J. & A. Maclaren's Bill at 3 m/d for		100	0	0
,,	14.	Discounted Wilson & Co.'s Bill for £337 10s. 0d. at Bank yielding		332	5	0
,,	18.	Paid John Gunn (by cheque)		23	15	0
,,	,,	Discount allowed by him		1	5	0
,,	22.	Sold goods for cash		15	2	0
,,	25.	Paid R. Innes, Builder (by cheque) :—				

		£	s.	d.
For new shed		£100	0	0
,, repairs		32	10	0
NOTE.—These sums have not been previously credited to R. Innes.		£132	10	0
Less discount on above £32 10s. 0d. - £1 12 6				
Contra account for goods sold and debited to him in January £10 less discount - 2				
— 8 0 0				
		9	12	6

				£	s.	d.
				122	17	6
,,	27.	Cheque drawn for cash		20	0	0
,,	,,	Bought goods for cash		27	2	6
,,	30.	Paid Salaries and Wages (by cheque)		52	10	0
,,	,,	,, ,, (in cash)		23	7	6

Close and rule off the Cash Book.

50.

5. The following is the Trial Balance of Mitchell & Son at 31st May, 1907 whose books were last closed at 31st May, 1906 :—

	£	s.	d.	£	s.	d.
Robert Mitchell, Capital account				3,600	0	0
,, Drawings account	215	0	0			
James Mitchell, Capital account				1 800	0	0
,, Drawings Account	165	0	0			
Buildings	3,700	0	0			
Furniture and Fittings	250	0	0			
Goods				644	15	0
NOTE.—This balance consists of Sales for year, less goods on hand at beginning of year and purchases for year.						
Cash	15	2	6			
Bank				297	6	0
Bills Receivable	272	0	0			
Bills Payable				391	0	0
Consignment to Rio de Janeiro	182	8	6			
NOTE.—The consignee has not yet accounted for this consignment.						

	£	s.	d.	£	s.	d.
Wages and Salaries - - - - - - -	313	16	3			
Freights - - - - - - - -	47	7	4			
Interest - - - - - - - -	53	0	0			
Discount (allowed less received during year) -	322	7	3			
Discount Outstanding account - - - -				57	10	0
NOTE.—This balance is 5% on Dr. Accounts, less 5% on Cr. Accounts open at 31st May, 1906.						
S. White & Co. - - - - - - - -	763	7	3			
Park Bros. - - - - - - - - -	828	2	9			
Taylor & Son - - - - -				244	4	2
Richard Rae - - - - - -				122	5	10
Gibson and Dean - - - - - -	29	9	2			
	7,157	1	0	7,157	1	0

At 31st May, 1907 :—

(1) Goods on hand are valued at £750 10s.

(2) There are wages and salaries amounting to £52 10s. due.

(3) It is decided to write off against Profit and Loss Account Gibson and Dean's Account as bad.

(4) It is decided to allow for discounts on open accounts Dr. less Cr. outstanding at 5%.

(5) The Partners are entitled to 5% Interest on their Capital, which has remained unchanged during the year. No interest is to be reckoned on Partners' Drawings.

(6) The Partners share profit or loss :—⅔rds to Robert Mitchell and ⅓rd to James Mitchell.

Frame Profit and Loss Account for the year ending 31st May, 1907 and Balance Sheet at 31st May, 1907.

COMMERCIAL ARITHMETIC.

FIRST PAPER.

Tuesday, 25th 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 ....

6.

1. Add the following sums, and express your answer in £ s. d. to the nearest farthing :—

£
476502·714
158236·482
70984·370
829564·078
291663·845
179258·613
3617·008
450928·175
69178·382

£.
729641·824
526771·347
108995·732
92684·503
835916·477
106941·385
86435·789
478160·158
397307·512
71011·977
829356·455

	=	

4.   2. How many—

     pence in £5 10s. 6d. ? -   -   -

     inches in 8 yds. 2 ft. 4 in ? -   - -

     sq. poles in 2 acres 3 roods 25 poles ?

     lbs. avoir. in 3 cwt. 2 qrs. 10 lbs. ?

5.   3. Write down the values of—

     $\frac{5}{8} - \frac{3}{4} + \frac{7}{10}$ -   -   -   -

     $\frac{1}{2} + \frac{1}{4} + \frac{1}{8} + \frac{1}{16} + \frac{1}{32}$ -   -   -

     $\frac{5}{12} \times \frac{9}{20} \times \frac{24}{25} \times \frac{5}{18}$ -   -   -

     94·6 − 8·76554 -   -   -   -

     2·5 × 3·2 × 6·3 -   -   -   -

4.   4. Find the prices of—

     3 dozen articles at 1s. 2½d. each

     4 score   ,,   5s. 1½d.   ,,   -

     2 gross   ,,   2¾d.   ,,   -

     240   ,,   1s. 6¾d.   ,,   -

6.   5. How many square feet in a rectangle—

     3 ft 6 in. by 2 ft. 6 in. ?   -   -

     Express as a decimal fraction of a square metre the area of a rectangle—

     43 cm. by 125 mm. -   -   -

     How many cubic millimetres in a

     cubic decimetre -   -   -   -

COMMERCIAL ARITHMETIC

SECOND PAPER.

Tuesday, 25th 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 mis-apprehension as to what is really required.

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

Algebraical symbols may be used if properly explained.

8.   1. An article in passing from the producer to the consumer passed through the hands of 3 dealers, each of whom added 10 per cent. to the price at which he bought it. If the final selling price was £22 3s. 8d., what was the original price.

8.   2. In the Buenos Ayres and Rosario Railway Company the balance available for the half-yearly distribution on June 30th was £896,744 1s. 3d., out of which the following dividends were paid *for the half-year:*—

      On 33,209 preference shares of £12 each at the rate of 7 % *per annum.*
      On £4,304,360 preference stock 7 % *per annum.*
      On £16,786,930 ordinary stock at 5 % *per annum.*
Find the amount of the balance left after paying these dividends.

8.   3. If a metre is taken as 39·37 inches and £1 as 25·2 francs, find which is dearer, a franc per metre or 8d. per yard.

13.   4. Describe any two methods by which a Glasgow merchant might settle a debt incurred in Berlin.

Find the cost of drawing in Glasgow a bill for 18576 marks due in Berlin, the cheque rate being 20·52 marks for £1, the bill stamp costing 1s. per £100 and the bank commission $\frac{1}{8}$ per cent.

8.   5. Calculate to four decimal places the value of

$$\frac{4\cdot716 \times 3\cdot214 \times \cdot07651}{43\cdot27 \times 9\cdot665},$$

using logarithms if you prefer to do so.

13.   6. A sheet of lead is 10 metres long, 2 metres broad and one centimetre thick. How many cubic centimetres does it contain?

Find the weight of the sheet in kilograms if a cubic centimetre of lead weighs 11 grams.

10.   7. A bankrupt's debts amount to £10226 and his assets to £3781. After paying legal and other expenses of £137, the remainder falls to be divided among the creditors in proportion to their claims. Find to the nearest farthing how much in the pound each creditor will receive.