

(No. 88.)



1886.

PARLIAMENT OF TASMANIA.

TASMANIAN SCHOLARSHIPS:

EXAMINERS' REPORT, 1885.

Presented to both Houses of Parliament by His Excellency's Command.



TASMANIAN COUNCIL OF EDUCATION.

TASMANIAN SCHOLARSHIPS, 1885.

THE Council of Education has directed the publication of the names of the under-mentioned Candidates who have passed the Examination for the Tasmanian Scholarships to the satisfaction of the Examiners, and to whom Scholarships of the value of £200 per annum each have been awarded, tenable for four years from the 1st June next, subject to the conditions laid down by the Council's Regulations :—

RALPH STUART STEPHENSON, aged (1st September) 19 years and 5 months, A. A. Degree, 1882. Pupil at Horton College.

EDWIN ARTHUR LAMPRIILL, aged (1st September) 19 years and 10 months, A. A. Degree, 1883. Pupil at Christ's College.

The Report of the Examiners is annexed.

By Order of the Council,

Hobart, 22nd December, 1885.

GEO. RICHARDSON, *Secretary*.

EXAMINERS' REPORT, 1885.

MR. PRESIDENT AND MEMBERS OF THE TASMANIAN COUNCIL OF EDUCATION.

WE have the honour to report that the Examination for the Tasmanian Scholarships began on Thursday, 10th December, and ended on Friday, 18th December.

Three Candidates presented themselves, one other who had entered his name being unfortunately prevented by illness from appearing at the Examination.

All the competitors fulfilled the conditions laid down by the Council, by obtaining each over 2200 marks, including 500 for Classics and 300 for Mathematics.

Two of the Candidates, Lamprill and Giblin, offered Higher Classics as a subject of examination, the other, Stephenson, taking Higher Mathematics. Lamprill offered German, and Stephenson and Giblin French.

Stephenson is *facile princeps* with a gross total of 3293 marks out of a maximum of 5700. Lamprill has gained the second place with a total of 2687, and also takes a Scholarship. Both in Classics and Mathematics Giblin makes a good *proxime accessit*, but was completely outstripped by the second scholar, Lamprill, in English and Modern History.

In the elementary part of the Mathematical work Stephenson was very far ahead of the others; but his most brilliant answering was in the Higher Mathematics, in which he obtained more than two-thirds of the maximum marks.

In Lower Classics Stephenson's papers were characterised chiefly by their fulness of information and minute accuracy, which secured for him the first place in this subject also ; but it is only fair to add that his translations and prose composition were inferior in style to those both of Lamprill and Giblin : indeed, in both Latin and Greek composition Lamprill was decidedly the best of all. He was also first in English and History. The examiner in German reports that his translation from English into German showed a fair knowledge of German prose composition, and that his translations from German into English were excellent. Giblin's translations of French into English deserve special mention for their grace and elegance. The competition in Higher Classics between Lamprill and Giblin was extremely keen, and in some of the papers it was no easy matter to discriminate between them. The superiority of Lamprill's scholarship was most distinctly shown in the Greek translation at sight. In this subject the passages set were undoubtedly difficult, and Lamprill's renderings were excellent. The Latin passages from authors not prescribed were also by no means easy, and the papers of both candidates were very creditable indeed. Giblin sent in the best papers in Latin and Greek verse writing, but neither candidate showed any very special excellence in this branch of scholarship.

There are two suggestions which the Examiners would venture to offer as perhaps worthy of the consideration of the Council : one relates to Classics, the other to Mathematics. Might it not be advantageous to include translation at sight even in the Lower Classics, as in the case of the A.A. Degree? Not only is there no test of scholarship so severe and so sure as this, but, further, it is the test to which the Tasmanian Scholars will have to submit, if they try for open scholarships in the Home Universities, as it is to be hoped they will generally do. So far as the Examiners are aware, there is no instance of particular authors being prescribed for open scholarships in any of the Colleges of Oxford or Cambridge. And it is also perhaps a fair matter for consideration whether Spherical Trigonometry is not too much of a special branch of Mathematical study to be very suitable at an examination for which boys are usually prepared in the Grammar Schools. Possibly it might be an improvement to substitute Elementary Solid Geometry, or simply to require a more thorough training in the Calculus and in Analytical Plane Geometry.

The Candidates recommended to the Council for election to the Scholarships are—

1. RALPH STUART STEPHENSON, Associate of Arts, 1882, of Horton College.
2. EDWIN ARTHUR LAMPRILL, Associate of Arts, 1883, of Christ's College.

A full Schedule of Marks is appended to this Report.

ALEX. LEEPER, *LL.D.*, *Examiner-in-Chief.*

December 21, 1885.

EXAMINATION for the TASMANIAN SCHOLARSHIPS, December, 1885.

TABLE OF MARKS.

	Full Marks.	Motto.		
		B.	C.	D.
MODERN LANGUAGES AND HISTORY.				
I. English	400	96	148	174
II. French	400	214	211	...
III. German	400	303
IV. Modern History	400	162	202	235
Total.....	1600	472	561	712
LOWER CLASSICS.				
I. Latin Authors prescribed, Grammar, &c.	375	221	268	208
II. Latin Prose and History.....	375	124	128	170
III. Greek Authors prescribed, Grammar, &c.	375	184	256	194
IV. Greek Prose and History	375	144	168	180
Total.....	1500	673	820	752
HIGHER CLASSICS.				
I. Latin Authors, not specified	400	211	...	220
II. Greek Authors, not specified.....	400	168	...	217
III. Critical, Historical, and Philological Questions	350	180	...	195
IV. Verse Composition, Latin and Greek.....	350	118	...	96
Total.....	1500	677	...	728
LOWER MATHEMATICS.				
I. Arithmetic and Algebra	50	70	122	40
II. Euclid and Geometrical Conics.....	375	95	215	160
III. Trigonometry, Logarithms, and Analytical Geometry	375	155	237	115
IV. Natural Philosophy.....	400	100	240	180
Total.....	1500	420	814	495
HIGHER MATHEMATICS.				
I. Theory of Equations.....	350	...	231	...
II. Spherical Trigonometry.....	350	...	285	...
III. Differential and Integral Calculus.....	400	...	322	...
IV. General Problems.....	400	...	260	...
Total	1500	...	1098	...
GRAND TOTAL.....	...	2242	3293	2687

21st December, 1885.

ALEX. LEEPER, LL.D., *Examiner-in-Chief.*

A.**Mathematics.—I.**

Three hours.

T. J. SMITH, Esq., M.A., *Examiner.***ARITHMETIC AND ALGEBRA.**

- I.—1. State and prove the rule of casting out the nines. Illustrate by examples.
 2. State and prove the rule for finding the value of a recurring decimal. Illustrate by examples.
 3. The debts of a banker amount to £2134 10s. 6d.; and his assets consist of property worth £916 15s. 4d. and an undiscounted bill of £513 due 4 months hence, simple interest being reckoned at 4 per cent. How much in the pound can he pay his creditors?
 4. A ladies' school consists of 15 pupils, who walk out in 5 rows of 3 abreast. They are arranged so that no two pupils should walk twice abreast. Shew that they can only walk out 7 times subject to this condition; and write down the orders on the different days.

- II.—1. Prove that $a^3 + b^3 + c^3 > 3abc$; a, b, c being positive integers and not all equal.

2. Show that the series $\frac{1}{1^p} + \frac{1}{2^p} + \frac{1}{3^p} + \&c.$ is convergent if p be greater than unity, and divergent if p be equal to or less than unity.

And find whether the series $\frac{2}{2^2 + 1} + \frac{3}{3^2 + 1} + \frac{4}{4^2 + 1} + \&c.$ be convergent or divergent.

3. Define a recurring series, and find the sum of n terms of such a series. And sum to infinity, for values of x which make it convergent, the recurring series $1 - 6x^2 - 30x^3 - \dots$, and find its general term.
 4. Prove the rule for forming successive convergents to a given fraction. And find all the convergents to the fraction $\frac{522}{2437}$.
 5. State and prove Fermat's theorem.
 6. Find the chance of throwing 17 in one throw with three dice.
 7. If $ax^2 + by^2 + cz^2 = 0$
 $ax + by + cz = 0$
 $xy + yz + zx = 0$
 prove that $\frac{a}{b-c} + \frac{b}{c-a} + \frac{c}{a-b} = 0$.

A.**Mathematics.—II.**

Three hours.

T. J. SMITH, Esq., M.A., *Examiner.***EUCLID AND GEOMETRICAL CONICS.**

- I.—1. Given the base of a triangle in magnitude and position, to prove that the straight line joining the two most remote edges of the squares described upon the sides always passes through a fixed point.
 2. Two circles touch externally at A, and the tangent at B to one of them cuts the other at C, D. Prove that BC, BD subtend supplementary angles at A.
 3. Given the difference of two straight lines and their ratio, find the lines.
 4. Two triangles are such that the intersections of corresponding sides lie on a straight line. Prove that the lines joining the corresponding vertices meet in a point.
 5. Through two given points within a given circle, to describe a circle which shall bisect the circumference of the other.

- II.—1. Prove that in any conic the semi-latus rectum is a harmonic mean between the segments of any focal chord.
 2. Prove that in a parabola the rectangles contained by the segments of any two intersecting chords are to one another as the lengths of the parallel focal chords.

3. If from any point T on the tangent at P to a conic, there be drawn perpendiculars TL and TN to SP and the directrix, the ratio of SL to TN will be constant and equal to the excentricity.
4. Define conjugate diameters of an ellipse, and prove that if two such diameters meet a directrix in p, d , then $pX \cdot dX : CX^2 = CB^2 : CA^2$.
5. Prove that in a hyperbola the difference of squares on conjugate diameters is constant.
6. If the normal to a conic at P meet the axis in G , prove that $SG : SP = SA : AX$.

A.

Mathematics.—III.

Three hours.

T. J. SMITH, Esq., M.A., *Examiner*.

TRIGONOMETRY, LOGARITHMS, AND ANALYTICAL GEOMETRY.

- I.—1. Find the greatest angle of the triangle whose sides are 50, 60, 70 respectively, having given $\log 6 = .7781513$, $L. \cos 39^\circ 14' = 9.8890644$, $\text{diff. } 1' = 1032$.
2. Given $\log 1\frac{1}{3} = .0791812$ and $\log 2\frac{2}{3} = .3802112$, find the value of $\sqrt[5]{(3 \cdot 6)^3} \times \sqrt[4]{\frac{1}{25}} \div \sqrt[3]{8\frac{4}{5}}$,
the mantissæ for 46929 and 46930 being 6714413 and 6714506.
3. Shew that in any triangle $b^2 \cos 2B + c^2 \cos 2C + 2bc \cos (B - C) = a^2 \cos 2(B - C)$.
4. If $x + y \cos a + z \sin a = \cos (\beta - \gamma)$
 $x + y \cos \beta + z \sin \beta = \cos (\gamma - a)$
 $x + y \cos \gamma + z \sin \gamma = \cos (a - \beta)$
prove that $x = 4 \cos \frac{\beta - \gamma}{2} \cos \frac{\gamma - a}{2} \cos \frac{a - \beta}{2}$.
5. ABC is a triangle, and AD is drawn perpendicular to BC. Circles are inscribed in ABD, ACD whose radii are r_1, r_2 , and circles escribed touching BD and CD whose radii are ρ_1, ρ_2 : prove that $\frac{r_1}{\rho_1} : \frac{r_2}{\rho_2} = \tan \frac{B}{2} : \tan \frac{C}{2}$.
6. Find the six values of $(1 + \sqrt{-1})^{\frac{1}{6}}$ and express $\sin 5A \cdot \cos 2A$ in terms of $\sin A$.
7. Express $\cos^3 \theta \sin^4 \theta$ in terms of cosines of multiples of θ , and prove that
$$\sin \pi x = \pi x \left(1 - \frac{x^2}{1^2}\right) \left(1 - \frac{x^2}{2^2}\right) \left(1 - \frac{x^2}{3^2}\right) \dots$$
8. Resolve $x^n + \frac{1}{x^n} - 2 \cos n\theta$ into factors, and find a series for $\tan^{-1}x$ in powers of x .

- II.—1. Form the equation to the straight line passing through the origin and through the point of intersection of the straight lines—

$$\begin{aligned} ax + by + c &= 0 \\ a'x + b'y + c' &= 0. \end{aligned}$$

2. Show that the equation $x^2 + y^2 + ax + by + c = 0$ represents a circle or an impossible locus.
3. Prove that the locus of the middle points of a series of parallel chords in any conic is a straight line.
4. Investigate an expression for the length of the perpendicular from the centre on any tangent to an ellipse in terms of the angle the perpendicular makes with the major axis.

A.

Mathematics.—IV.

Three hours.

T. J. SMITH, Esq., M.A., *Examiner*.

NATURAL PHILOSOPHY.

1. Prove that the algebraic sum of the moments of two forces round any point in a plane containing the two forces is equal to the moment of their resultant round that point.

2. Find the centre of gravity of a triangular pyramid.
3. Find how the requisites of a good balance may be satisfied.
4. A body starting from rest is acted on by a uniform force in a fixed direction. Prove—assuming only the laws of motion—that $S = \frac{1}{2} ft^2$.
5. Find the direction, time, height, and range of flight of a particle projected under gravity.
6. If a body describe a circle of radius r , with uniform velocity v , the body is acted on by a force tending to the centre of the circle and equal to $m \frac{v^2}{r}$; m being the mass of the body.
7. Define whole pressure and centre of pressure; and find an expression for the whole pressure in a plane area immersed in a homogeneous fluid.
8. A conical wine-glass is immersed, mouth downwards, in water; how far must it be depressed in order that the water within the glass may rise half way up it?
9. A hollow cone filled with water and closed is held with its axis horizontal: find the resultant vertical pressure on the upper half of the curved surface.
10. A particle slides down a smooth plane inclined at an angle of 30° to the horizon. Find its velocity after moving from rest through 10 feet, and the time occupied in moving that distance.
11. A circle revolves with uniform velocity in its own plane about its centre. The centre moves with varying velocity along a straight line. Find the velocity parallel to this line, at any instant, of a point in the circumference, and deduce the acceleration of the centre necessary for this point to be always moving at right angles to the line.

B.

Mathematics.—I.

Three hours.

T. J. SMITH, Esq., M.A., *Examiner*.

THEORY OF EQUATIONS.

1. Prove that every equation of an odd degree has at least one real root of a sign opposite to that of its last term.
2. Prove that every equation of n dimensions has n roots and no more.
3. State and verify Descartes' Rule of Signs.
4. The equations $\left. \begin{aligned} x^3 + px^2 + qx + r &= 0 \\ x^3 + p'x^2 + q'x + r' &= 0 \end{aligned} \right\}$ have two common roots: find the quadratic furnishing them, and the third root of each.
5. Find the symmetric function $\Sigma \alpha^3\beta$ for the biquadratic $x^4 + px^3 + qx^2 + rx + s = 0$.
6. Show how to transform an equation into another wanting any given term.
7. Show how to solve a reciprocal equation, and solve $x^5 + x^4 + x^3 + x^2 + x + 1 = 0$.
8. Describe the most convenient general method of finding in practice tolerably close limits to the roots of an equation, and find a superior limit to the positive roots of $x^4 - 5x^3 + 40x^2 - 8x + 23 = 0$.
9. Give an account of Sturm's Theorem, and indicate its use by an example.
10. State and explain Horner's Method of solving numerical equations.
11. Prove that the product of two determinants of any order is itself a determinant of the same order.

B.

Mathematics.—II.

Three hours.

T. J. SMITH, Esq., M.A., *Examiner*.

SPHERICAL TRIGONOMETRY.

1. Define "polar triangle," and prove that the sides and angles of the polar triangle are respectively the supplements of the angles and sides of the primitive triangle.
2. Prove that in any spherical triangle,
 - (i.) $\cos a = \cos b \cos c + \sin b \sin c \sin A$.
 - (ii.) $\cot a \cdot \sin b = \cot A \sin C + \cos b \cdot \cos c$.

3. If δ be the length of the arc drawn from C perpendicular to AB in any triangle, show that $\cos \delta = \operatorname{cosec} (\cos^2 a + \cos^2 b - 2 \cos a \cos b \cos c)^{\frac{1}{2}}$.
4. State Napier's rules for the solution of right-angled spherical triangles, and prove them for the case in which the middle part is one of the sides containing the right angle.
5. In a spherical triangle ABC , $A = B + C$: prove that $\sin^2 \frac{a}{2} = \sin^2 \frac{b}{2} + \sin^2 \frac{c}{2}$.
6. Define spherical excess, and show how it is connected with the area of a spherical triangle. In a spherical triangle $a = b = \frac{\pi}{3}$, $c = \frac{\pi}{2}$: prove that the spherical excess is $\cos^{-1} \frac{7}{9}$.
7. Solve the spherical triangle ABC , given $A = 36^\circ$, $B = 60^\circ$, $C = 90^\circ$.

B.**Mathematics.—III.**

Three hours.

T. J. SMITH, Esq., M.A., *Examiner.***DIFFERENTIAL AND INTEGRAL CALCULUS.**

- I.—1. Find the differential coefficients of a^x , $\frac{x^2}{1 + \sqrt{1-x^2}}$, $\log \tan x$, $\tan^{-1} \frac{2x}{1-x^2}$; and from the definition of a differential coefficient, that of $x^{\frac{1}{3}}$.
2. State Maclaurin's theorem, and apply it to expand $\sin x$ in powers of x .
3. Find the value of $\frac{\sin ax}{x - \frac{a}{b} \sin bx}$ when $x = 0$.
4. Given the volume of a cone, find its form when the whole surface is a minimum.
5. Find the n^{th} differential coefficient of $\frac{x^3}{(x-a)(x-b)(x-c)}$.
6. State Leibniz' theorem, and prove that if $y = \cos(m \cos^{-1} x)$,

$$(1-x^2) \frac{d^2 y}{dx^2} - x \frac{dy}{dx} + m^2 y = 0.$$

- II.—1. Explain the method of integration by parts, and apply it to integrate

$$x^2 e^{ax}, x^3 \sin x, e^{ax} \cos(bx + c).$$

2. Show how to integrate $\sin^m x \cos^n x$ when one of the two quantities m, n is an odd positive integer.
3. State the fundamental theorem of the integral calculus, and give a geometrical illustration.
4. Find the volume cut off from a sphere by two parallel planes.
5. Show how to integrate any fraction of the form $\frac{ax^2 + bx + c}{(x-a)(x-\beta)(x-\gamma)}$.
6. Explain the method of integration by substitution, and show how to integrate $\frac{1}{a + b \cos x + c \sin x}$.

B.**Mathematics.—IV.**

Three hours.

J. T. SMITH, Esq., M.A., *Examiner.***GENERAL PROBLEMS.**

1. Find the area of the maximum triangle which can be inscribed in a circle.
2. A man looks at a clock between the hours of 4 and 5, and again between the hours of 7 and 8, and he observes that in the interval the hour hand and minute hand have precisely changed their positions. Show that at each observation the hands were equally inclined to the vertical.

3. A, B, C, D, and E play at cards. A deals first and loses to each of the players as many counters as he has. B, C, D, and E act similarly. They then find that each player has 32 counters. How many had each at the beginning of the game?
4. A uniform heavy rod is placed across a smooth horizontal rail, and rests with one end against a smooth vertical wall, the distance of which from the rail is $\frac{1}{16}$ the length of the rod. Find the angle the rod makes with the horizon when there is equilibrium.
5. A, B, C are three points in the circumference of a circle. Forces act along AB, BC inversely proportional to these straight lines. Show that their resultant acts along the tangent at B.
6. Inscribe in a circle geometrically a triangle whose sides shall be parallel to three given straight lines.
7. If 1000 lbs. can be carried 1000 miles for £1, and the rate of conveyance is the same abroad, find to two places of decimals how many kilograms can be carried 100 kilometers for 20 francs. Given £1 = 25·2 francs, 1 kilom. = ·6214 mls., 1 kilog. = 2·2046 lbs.
8. A square rests with its plane perpendicular to a smooth wall, one corner being attached to a point in the wall by a string whose length is equal to a side of the square. Show that the distance of three of its angular points from the wall are as 1 : 3 : 4.

A.

Latin.—I.

Three hours.

DR. LEEPER, *Examiner*.

I.—Translate, paying attention to style as well as accuracy—

(a) Quam qui leviozem faciunt, somni simillimam volunt esse: quasi vero quisquam ita nonaginta annos velit vivere, ut, quum sexaginta confecerit, reliquos dormiat! Ne sues quidem id velit, non modo ipse. Endymion vero, si fabulas audire volumus, ut, nescio quando, in Latmo obdormivit, qui est mons Cariae, nondum, opinor, est experrectus. Num igitur eum curare censes, quum Luna laboret, a qua consopitus putatur, ut eum dormientem oscularetur? Quid curet autem, qui ne sentit quidem?

(b) Ingemiscere nonnumquam viro concessum est, idque raro: eiulatus ne mulieri quidem. Et hic nimirum est fletus, quem duodecim tabulae in funeribus adhiberi vetuerunt. Nec vero umquam ne ingemiscit quidem vir fortis ac sapiens, nisi forte ut se intendat ad firmitatem, ut in stadio cursores exclamant, quam maxime possunt. Faciunt idem, quum exercentur, athletae: pugiles vero, etiam quum feriunt adversarium, in iactandis caestibus ingemiscunt; non quod doleant animo succumbant, sed quia profundenda voce omne corpus intenditur, venitque plaga vehementior.

(c) Nec quidquam ultra formidinis: vacua castella, senum coloniae, inter male parentes et injuste imperantes, aegra municipia et discordantia: hic dux, hic exercitus: ibi tributa et metalla et ceterae servientium poenae, quas in aeternum perferre aut statim ulcisci in hoc campo est. Proinde ituri in aciem et majores vestros et posteros cogitate.

(d) Legiones pro vallo stetere, ingens victoriae decus citra Romanum sanguinem bellanti, et auxilium, si pellerentur. Britannorum acies in speciem simul ac terrorem editioribus locis constiterat, ita ut primum agmen in aequo, ceteri per acclive jugum connexi velut insurgerent: media campi covinarius eques strepitu ac discursu complebat. Tum Agricola, superante hostium multitudine, veritus ne simul in frontem simul et latera suorum pugnaretur, diductis ordinibus, quanquam porrectior acies futura erat, et arcessendas plerique legiones admonebant, promptior in spem et firmus adversis, dimisso equo pedes ante vexilla constitit.

(e) Suionum hinc civitates ipso in Oceano praeter viros armaque classibus valent: forma navium eo differt, quod utrimque prora paratam semper appulsui frontem agit: nec velis ministrantur, nec remos in ordinem lateribus adjungunt. Solutum, ut in quibusdam fluminum, et mutabile, ut res poscit, hinc vel illinc remigium. Est apud illos et opibus honos: eoque unus imperitat, nullis jam exceptionibus, non precario jure parendi: nec arma, ut apud ceteros Germanos, in promiscuo, sed clausa sub custode et quidem servo: quia subitos hostium incursus prohibet Oceanus. Otiosa porro armatorum manus facile lasciviunt: enimvero neque nobilem neque ingenuum, ne libertinum quidem armis praeponere regia utilitas est.

(f)

Largior hic campos aether et lumine vestit
Purpureo, solemque suum, sua sidera norunt.
Pars in gramineis exercent membra palaestris,
Contendunt ludo, et fulva luctantur arena;
Pars pedibus plaudunt choreas et carmina dicunt.
Nec non Threicius longa cum veste sacerdos
Obloquitur numeris septem discrimina vocum,
Jamque eadem digitis, jam pectine pulsat eburno.

- (g) Sy. Nostin porticum apud macellum hac deorsum? De. Quid ni nouerim?
 Sy. Præterito hac recta platea sursum: ubi eo ueneris,
 Cliuos deorsum uorsus est: hac te præcipitato; postea
 Est ad hanc manum sacellum: ibi angiportum propter est,
 De. Quanam? Sy. Illi ubi etiam caprificus magna est.
 De. Noui. Sy. Hac pergito.
 De. Id quidem angiportum non est peruium. Sy. Verum hercle: uah,
 Censen hominem me esse? erraui: in porticum rursum redi:
 Sane hac multo propius ibis et minor est erratio.
 Scin Cratini huius ditis ædis? De. Scio. Sy. Ubi eas præterieris,
 Ad sinistram hac recta platea; ubi ad Dianae ueneris,
 Ito ad dextram: priusquam ad portam uenias, apud ipsum lacum
 Est pistrilla et exaduorsum fabrica: ibist. De. Quid ibi facit?
 Sy. Lectulos in sole ilignis pedibus faciundos dedit.
 De. Ubi potetis uos: bene sane. Sed cesso ad eum pergere?
 Sy. I sane: ego te exercebo hodie, ut dignus es, silicernium.

II.—1. State anything you know about the following persons:—Cineas, Panætius, Theramenes, Aristippus, Helvidius.

2. Write geographical notes upon the following:—Langobardi, Sarmatæ, Batavi, Pannonia, Thule, Gabii, Garamantes, Erymanthus, Oeta, Cyrene.

3. Translate the following, and explain allusions:—

- (a) Aggeribus socer Alpinis atque arce Monœci
 Descendens, gener aduersis instructus Eoïs.
 (b) Sedet, æternumque sedebit,
 Infelix Theseus; Phlegyasque miserrimus omnes
 Admonet, et magna testatur voce per umbras.
 (c) —vel te sulco, Serrane, serentem.
 (d) —vel quæ, Tiberine, videbis
 Funera, cum tumulum præterlabere recentem.
 (e) Nec defuit audentia Druso Germanico; sed obstitit Oceanus in se simul atque in
 Herculem inquiri.
 (f) Quippe regno Arsacis acrior est Germanorum libertas.
 (g) Gignit et Oceanus margarita, sed subfusca ac liventia. Quidam artem abesse
 legentibus arbitrantur; nam in rubro mari viva ac spirantia saxis avelli.
 (h) Et intra Albanam arcem sententia Messalini strepebat.
 (i) Non cum Latinis decertans pater Decius, cum Etruscis filius, cum Pyrrho nepos,
 se hostium telis objecissent; non uno bello pro patria cadentes Scipiones Hispania vidisset,
 Paullum et Geminum Cannæ, Venusia Marcellum, Litana Albinum, Lucania Gracchum.
 (j) Genu, mehercule, M. Antonium vidi, quum contente pro se ipse lege Varia diceret,
 terram tangere.
 (k) Acta ludis funebribus Æemili Paulli, quos fecere Q. Fabius Maximus P. Cornelius
 Africanus.

III.—1. Write etymological notes upon faxo, silicernium, arcesso, prodambulare, templum, religio, consul, luna, vestibulum, nemus.

2. Give the uses of the moods in Latin with *quum* and *dum*.

3. Give a short account of the chief metres used in the Adelphoe.

4. Give the rules for the conversion of *Oratio Recta* to *Oratio Obliqua*.

A.

Latin.—II.

Three hours.

DR. LEEPER, *Examiner*.

For Latin Prose—

I. Then Quintus said: "Your remarks are perfectly true. Indeed in my own case, as I came here, I found my thoughts drawn towards the site of Colone, whose citizen Sophocles flitted before my eyes—you know the admiration I feel for him and the pleasure I take in him. A kind of vision too, empty phantom though it was, nevertheless aroused me to consciousness of the still older story of Oedipus, as he came here and begged in that tenderest of strains to know what was the name of that very spot." Then Pomponius interposed: "But I, against whom you often inveigh as a slave of Epicurus, do indeed spend a good deal of my time along with Phædrus, my dearest friend, as you all know, in

the garden of Epicurus, which we just now passed ; but still, as the old saw enjoins, I bear the living in mind ; though of course I cannot forget Epicurus, even though I were to wish it, for my friends of our school preserve his likeness not only in pictures but even on cups and signet rings.—CICERO.

II. Vespasian himself was a man of low class ; neither himself nor his ancestors had become ennobled by the attainment of civic honours. He had risen to military rank by the strength of his own arm, sustained by prudence and ability, and he had been raised to the highest place by the support of the soldiers, by whom he was now thrust upon an amazed and possibly a reluctant Senate. But the people readily accepted this irregular nomination, and the accident which had identified his fortunes with those of the great temple on the Capitoline, and made the Flavii its defenders when assailed by impious adversaries, gave at once that colour of sanctity to his enterprise, and perhaps of divinity to his person, which he wanted, in order to fill in popular imagination the place of the sacred family which had just vanished from the scene.

[Candidates are at liberty to render the foregoing passage in the style of the author they know best, but that of Tacitus is suggested as most appropriate.]

HISTORY.

1. Write short notices of Duilius, Spartacus, Sertorius, C. Gracchus.
2. For what events in Roman History are the following places remarkable :—Beneventum, Vercellæ, Thapsus, Saguntum, Munda, Cynoscephalæ.
3. Dates of the battles of Cannæ, the Metaurus, Zela, Drepanum, Pharsalia, and Philippi, and of the accession of Tiberius and of Constantine.
4. Write a short life of Sulla, with dates.
5. * Political and literary characteristics of the age of the Antonines.

* Special credit will be given for a good answer to this question.

A.

Greek.—I.

Three hours.

DR. LEEPER, *Examiner.*

- I. Translate, having regard to style as well as accuracy—

(a) Ἀρά σοι ψήφοις ὁμοίος ὁ τῶν ἔργων λογισμὸς φαίνεται ; ἡ δὲ ἄντανελεῖν ταῦτα, ἀλλ' οὐχ ὅπως τὸν ἅπαντα χρόνον μνημονευθήσεται σκέψασθαι ; καὶ οὐκέτι προστίθῃμι ὅτι τῆς μὲν ὠμότητος, ἣν ἐν οἷς καθάπαξ τινῶν κύριος κατέστη Φίλιππος ἔστιν ἰδεῖν, ἐτέροις πειραθῆναι συνέβη, τῆς δὲ φιλανθρωπίας, ἣν τὰ λοιπὰ τῶν πραγμάτων ἐκεῖνος περιβαλλόμενος ἐπλάττετο, ὑμεῖς καλῶς ποιοῦντες τοὺς καρποὺς κεκόμισθε. ἀλλ' ἐὼ ταῦτα.

(b) Ταῦτα καὶ τοιαῦτα πράττειν, Αἰσχίνη, τὸν καλὸν κάγαθόν πολίτην δεῖ, ὧν κατορθουμένων μὲν μεγίστοις ἀναμφισβητήτως ὑπῆρχεν εἶναι, καὶ τὸ δικαίως προσῆν, ὡς ἐτέρως δὲ συμβάντων τὸ γοῦν εὐδοκιμεῖν περίεστι καὶ τὸ μηδὲν ἄμμεψεσθαι τὴν πόλιν μηδὲ τὴν προαίρεσιν αὐτῆς, ἀλλὰ τὴν τύχην κακίζειν τὴν οὕτω τὰ πράγματα κρίνασαν, οὐ μὰ Δί' οὐκ ἀποστάντα τῶν συμφερόντων τῇ πόλει, μισθώσαντα δ' αὐτὸν τοῖς ἐναντίοις, τοὺς ὑπὲρ τῶν ἐχθρῶν καιροὺς ἀντὶ τῶν τῆς πατρίδος θεραπεύειν, οὐδὲ τὸν μὲν πράγματ' ἄξια τῆς πόλεως ὑποστάντα λέγειν καὶ γράφειν καὶ μένειν ἐπὶ τούτων προελόμενον βασκαίνειν, ἂν δὲ τις ἰδίᾳ τι λυπήσῃ, τοῦτο μεμνησθαι καὶ τηρεῖν, οὐδὲ γ' ἡσυχίαν ἄγειν ἄδικον καὶ ὑπουλον, ὃ σὺ ποιεῖς πολλάκις.

- (c) ΠΕΙ. τίς δαὶ καθέξει τῆς πόλεως τὸ Πελαργικόν ;
 ΕΠ. ὄρνις ἀφ' ἡμῶν τοῦ γένους τοῦ Περσικοῦ,
 ὅσπερ λέγεται δεινότατος εἶναι πανταχοῦ
 Ἄρεως νεοττός. ΕΥ. ὦ νεοττὲ δέσποτα
 ὡς δ' ὁ θεὸς ἐπιτήδειος οἰκεῖν ἐπὶ πετρῶν.
 ΠΕΙ. ἄγε νυν, σὺ μὲν βιάδιζε πρὸς τὸν ἀέρα,
 καὶ τοῖσι τειχίζουσι παραδιακόνει,
 χάλικας παραφόρει, πηλὸν ἀποδὸς ὄργανον,
 λεκάνην ἀνένεγκε, κατάπεσ' ἀπὸ τῆς κλίμακος,
 φύλακας κατὰσθαι, τὸ πῦρ ἔγκρυπτ' αἰεί,
 κωδωνοφορῶν περίτρεχί, καὶ κάθευδ' ἐκεῖ
 κήρυκα δὲ πέμψον τὸν μὲν εἰς θεοὺς ἄνω,
 ἕτερον δ' ἄνωθεν αὐτὸν παρ' ἀνθρώπους κάτω,
 κακέῃθεν αὖθις παρ' ἐμέ.

(d)

Ἦδη μοι τῷ παντόπῳ
καὶ παντάρχα θνητοὶ πάντες
θύσουσ' εὐκαταῖς εὐχαῖς.
πᾶσαν μὲν γὰρ γᾶν ὀπτέω,
σώζω δ' εὐθαλεῖς καρπούς,
κτείνων παμφύλων γένναν
θηρῶν, οἳ πάντ' ἐν γαίᾳ
ἐκ κάλυκος αὐξανόμενον γένυσιν πολυφάγοις,
δένδρεσσι τ' ἐφεζόμενα καρπὸν ἀποβόσκειται
κτείνω δ' οἳ κήπους εὐώδεις
φθείρουσιν λύμαις ἐχθίσταις.
ἐρπετά τε καὶ δακέθ', ὅσα περ
ἔστιν, ὑπ' ἐμᾶς πτέρυγος
φοναῖσιν ἐξόλλυται.

(e) Τοῦτον δ' ἔγωγε τὸν χρησμὸν τὸν Μαρδόνιος εἶπε ἐς Πέρσας ἔχειν, ἐς Ἰλλυριοὺς τε καὶ τὸν Ἑγγέλειον στρατὸν οἶδα πεποιημένον, ἀλλ' οὐκ ἐς Πέρσας. Ἀλλὰ τὰ μὲν Βάκιδι ἐς ταύτην τὴν μάχην πεποιημένα.

Τὴν δ' ἐπὶ Θερμώδοντι καὶ Ἀσωπῷ λεχεποίῃ
Ἑλλήνων σύνοδον, καὶ βαρβαρόφωνον ἰνῆν.
τῇ πολλοὶ πεσέονται ὑπὲρ Δάχεσιν τε μόρον τε
τόξοφόρων Μήδων, ὅταν αἰσιμον ἡμαρ ἐπέλθῃ.

ταῦτα μὲν καὶ παραπλήσια τούτοις ἄλλα Μουσαῖω ἔχοντα οἶδα ἐς Πέρσας. ὁ δὲ Θερμώδων ποταμὸς ῥεῖ μεταξὺ Τανάγρας τε καὶ Γλίσσαντος.

(f) Μετὰ δὲ τὴν ἀπὸ τῆς γυναικὸς αὐτίκα μετὰ ταῦτα ἀπίκοντο Μαντινέες ἐπ' ἐξεργασμένοις· μαθόντες δὲ ὅτι ὕστεροι ἤκουσι τῆς συμβολῆς, συμφορὴν ἐποιεύντο μεγάλην, ἀξιοί τε ἔφασαν εἶναι σφείας ζημιῶσαι· πυνθανόμενοι δὲ τοὺς Μήδους τοὺς μετὰ Ἀρταβάζου φεύγοντας, τούτους ἐδίωκον μέχρι Θεσσαλίας· Λακεδαιμόνιοι δὲ οὐκ ἔων φεύγοντας διώκειν· οἳ δὲ ἀναχωρήσαντες ἐς τὴν ἑωυτῶν, τοὺς ἡγεμόνας τῆς στρατιῆς ἐδίωξαν ἐκ τῆς γῆς. Μετὰ δὲ Μαντινέας ἦκον Ἡλεῖοι. καὶ ὡσαύτως οἳ Ἡλεῖοι τοῖσι Μαντινεῦσι συμφορὴν ποιησάμενοι ἀπαλλάσσοντο· ἀπελθόντες δὲ καὶ οὗτοι τοὺς ἡγεμόνας ἐδίωξαν. τὰ κατὰ Μαντινέας μὲν καὶ Ἡλείους τοσαῦτα.

II. Translate the following, explaining allusions—

(a) οἳ γὰρ Θηβαῖοι ἄτε μηδίζοντες μεγάλως προθύμως ἔφερον τὸν πόλεμον καὶ αἰε κατηγέοντο μέχρι μάχης.

(b) Λακεδαιμονίων δὲ ἀνέβωσε ἅπαν τὸ στρατόπεδον Ἀθηναίους ἀξιονικοτέρους εἶναι ἔχειν τὸ κέρας ἢ περ Ἀρκάδας.

(c) ἐγὼ μὲν τοίνυν ἔγραψα βουλευῶν ἀποπλεῖν τὴν ταχίστην τοὺς πρέσβεις ἐπὶ τοὺς τόπους ἐν οἷς ἂν ὄντα Φίλιππον πυνθάνωνται, καὶ τοὺς ὄρκους ἀπολαμβάνειν· οὗτοι δὲ οὐδὲ γράψαντος ἐμοῦ ταῦτα ποιεῖν ἠθέλησαν.

(d) τί οὖν; ἐπιχειρεῖ, θεάσασθ' ὥς εὖ, πόλεμον ποιῆσαι τοῖς Ἀμφικτύοσι καὶ περὶ τὴν Πυλαίαν ταραχὴν· εἰς γὰρ ταῦτ' εὐθύς αὐτοὺς ὑπελάμβανεν αὐτοῦ δεήσεσθαι. εἰ μὲν τοίνυν τοῦτο ἢ τῶν παρ' ἑαυτοῦ πεμπομένων ἱερομνημόνων ἢ τῶν ἐκείνου συμμάχων εἰσηγοῖτό τις, ὑπόψεσθαι τὸ πρᾶγμα ἐνόμιζε καὶ τοὺς Θηβαίους καὶ τοὺς Θετταλοὺς καὶ πάντας φυλάξεσθαι, ἂν δ' Ἀθηναῖος ἦ καὶ παρ' ὑμῶν τῶν ὑπεναντίων ὁ τοῦτο ποιῶν, εὐπόρως λήσειν· ὅπερ συνέβη.

(e) Χίοισιν ἦσθην πανταχοῦ προσκειμένοις.

(f) Τοὺς δ' αὖ θεοὺς ἀπολείτε λιμῷ Μηλίῳ.

(g) ἐπίσκοπος ἦκω δεῦρο τῷ κυάμῳ λαχών.

(h) ἀλλ' οὐτοσί τρέχει τις Ἀλφειὸν πνέων.

III.—1. Illustrate the various uses of the prepositions παρά, πρός, and κατά.

2. Construct sentences in Attic Greek illustrating the use of—

(a) Nominative Absolute.

(b) Partitive Genitive.

(c) Ethical Dative.

(d) Cognate Accusative.

3. Distinguish between ὥστε οὐ and ὥστε μή.

4. How is a wish expressed in Greek?

5. Explain the uses of the following:—

ἀλλ' οὖν. δ' οὖν. μὲν οὖν. καὶ πῶς; εἰ καί. καὶ εἰ.

6. Give the chief tenses in Attic use of the verbs ἀναλίσκω, ἐσθίω, ὀμνυμι, ἐλαύνω, ὀφλισκάνω, χαίρω, χέω, βλώσκω, αἰρέω.

A.**Greek.—II.**

Three hours.

DR. LEEPER, *Examiner.**To Candidates :*

[NOTE.—You are at liberty to render the following in the style of whatever Greek author you are most familiar with. The passages, however, have been specially chosen for the purpose of affording you an opportunity of exhibiting your acquaintance with the style of Demosthenes and of Herodotus.]

For Greek Prose—

(a) I do not disguise the intense solicitude which I feel for the event of this debate, because I know full well that the peace of the country is involved in the issue. I cannot look without dismay at the rejection of the measure. But grievous as may be the consequences of a temporary defeat, temporary it can only be; for its ultimate, and even speedy success is certain. Nothing can now stop it. Do not suffer yourselves to be persuaded that, even if the present Ministers were driven from the helm, anyone could steer you through the troubles which surround you without Reform. But our successors will take up the task in circumstances far less auspicious. Under them, you will be fain to grant a bill, compared with which, the one we now proffer you is moderate indeed. What may follow your course of obstinacy, if persisted in, I cannot take upon me to predict, nor do I wish to conjecture. But this I know full well, that, as sure as man is mortal, and to err is human, justice deferred enhances the price at which you must purchase safety and peace; nor can you expect to gather another crop than they did who went before you, if you persevere in their utterly abominable husbandry of sowing injustice and reaping rebellion.

(b) This nation is very trustworthy in matters of trade, and whenever foreign merchants enter their port, three Secretaries of the King immediately repair on board their vessels, write down their names, and report them to him. The King thereupon grants them security for their property, which they may even leave in the open fields without any guard. One of the King's officers sits in the market, and receives goods that may have been found anywhere, and which he returns to those applicants who can minutely describe them. This custom is observed in the whole empire of the King.

HISTORY.

1. What is known of the foundation of the following places:—Cyrene, Tarentum, Massilia, Halicarnassus, Thurii, Amphipolis.
2. What remarkable events in Grecian History belong to the following years?—B.C. 612, 560, 490, 466, 411, 387, 371, 338, 197, 146?
3. What changes were introduced into the Athenian Constitution by Cleisthenes; how and when was it subsequently rendered more democratic?
4. Narrate briefly the career of Brasidas, Epaminondas, Dionysius the Elder.
5. * Trace the connexion between the political and literary periods of Grecian History.

* Great credit will be given for a good answer to this question.

B.**Classics.—I.**

Three hours.

DR. LEEPER, *Examiner.*

Translate, having regard to style as well as accuracy—

(a) Venit Athenas philosophus Athenodorus, legit titulum, auditoque pretio, quia suspecta vilitas, percunctatus, omnia docetur, ac nihilo minus, immo tanto magis, conducit. Ubi cœpit advesperascere, jubet sterni sibi in prima domus parte, poscit pugillares, stylum, lumen: suos omnes in interiora dimittit, ipse ad scribendum animum, oculos, manum intendit, ne vacua mens audita simulacra et inanes sibi metus fingeret. Initio, quale ubique, silentium noctis, deinde concuti ferrum, vincula moveri: ille non tollere oculos, non remittere stylum, sed obfirmare animum, auribusque prætere: tum crebescere fragor, adventare etiam, ac jam ut in limine, jam ut intra limen audiri: respicit, videt, agnoscitque narratam sibi effigiem. Stabat innuebatque digito, similis vocanti: hic contra, ut paullum exspectaret, manu significat, rursusque ceris et stilo incumbit: illa scribentis capiti catenis insonabat: respicit rursus idem, quod prius, innuentem: nec moratus tollit lumen, et sequitur.

(b) Clausus ab umbroso qua alludit Pontus Averno
Fumida Baiarum stagna tepentis aquæ,
Qua jacet et Trojæ tubicen Misenus arena,

Et sonat Herculeo structa labore via,
 Hic, ubi, mortales dextra cum quæreret urbes,
 Cymbala Thebano concrepuere deo,—
 At nunc, invisæ magno cum crimine Baiaë,
 Quis deus in vestra constitit hostis aqua?—
 His pressus Stygias vultum demisit in undas,
 Errat et in vestro spiritus ille lacu.
 Quid genus, aut virtus, aut optima profuit illi
 Mater, et amplexum Caesaris esse focos?
 Aut modo tam pleno fluitantia vela theatro,
 Et per maternas omnia gesta manus?
 Occidit, et misero steterat vigesimus annus:
 Tot bona tam parvo clausit in orbe dies.
 I nunc, tolle animos, et tecum finge triumphos,
 Stantiaque in plausum tota theatra juvent.
 Attalicas supera vestes, atque omnia magnis
 Gemmea sint ludis: ignibus ista dabis.
 Sed tamen huc omnes, huc primus et ultimus ordo:
 Est mala, sed cunctis ista terenda via est.
 Exoranda canis tria sunt latrantia colla;
 Scandenda est torvi publica cymba senis.
 Ille licet ferro cautus se condat et ærè,
 Mors tamen inclusum protrahit inde caput.

(c) Movisse eos Camillus tum alia oratione, tum ea quæ ad religiones pertinebat maxime dicitur. Sed rem dubiam decrevit opportune vox emissæ, quod, quum senatus post paullo de his rebus in curia Hostilia haberetur, cohortesque ex præsidiis revertentes forte agmine forum transirent, centurio in comitio exclamavit: *Signifer, statue signum: hic manebimus optime*. Qua voce audita, et senatus, *accipere se omen*, ex curia egressus, conclamavit, et plebes circumfusa approbavit. Antiquata deinde lege promiscue urbs ædificari coepta. Tegula publice præbita est: saxi, materiæque cædendæ, unde quisque vellet, jus factum; prædibus acceptis eo anno ædificia perfecturos. Festinatio curam exemit vicos dirigendi, dum omisso sui alienique discrimine in vacuo ædificant. Ea est causa, ut veteres cloacæ, primo per publicum ductæ, nunc privata passim subeant tecta; formaque urbis sit occupatæ magis quam divisæ similis.

B.

Classics.—II.

Three hours.

DR. LEEPER, Examiner.

Translate, having regard to style as well as accuracy—

- (a) Ἀμφίπολοι δ' ἄρα τέως μὲν ἐνὶ μεγάροισι πένοντο
 τέσσαρες, αἳ οἱ δῶμα κατὰ δρήστειραι ἔασιν.
 γίνονται δ' ἄρα ταί γ' ἐκ τε κρηνέων ἀπὸ τ' ἀλσέων
 ἐκ θ' ἱερῶν ποταμῶν, οἳ τ' εἰς ἅλαδε προρέουσιν.
 τῶν ἢ μὲν ἔβαλλε θρόνοις ἐνὶ ῥήγεα καλά
 πορφύρεα καδύπερθ', ὑπένερθε δὲ λίθ' ὑπέβαλλεν·
 ἢ δ' ἑτέρη προπάροιθε θρόνων ἐτίταινε τραπέζας
 ἀργυρέας, ἐπὶ δὲ σφί τίθει χρύσεια κάνεια·
 ἢ δὲ τρίτῃ κρητῇρι μελίφρονα οἶνον ἐκίρνα
 ἠδὺν ἐν ἀργυρέῳ; νέμε δὲ χρύσεια κύπελλα·
 ἢ δὲ τετάρτῃ ὕδωρ ἐφόρει, καὶ πῦρ ἀνέκαιεν
 πολλὸν ὑπὸ τρίποδι μεγάλῳ· λαίνετο δ' ὕδωρ.
 αὐτὰρ ἐπεὶ δὴ ζέσσειεν ὕδωρ ἐνὶ ἥνοπι χαλκῷ,
 ἔς ρ' ἀσάμινθον ἔσασα λό' ἐκ τρίποδος μέγαλοιο,
 θυμῆρες κεράσασα, κατὰ κρατὸς τε καὶ ὤμων,
 ὄφρα μοι ἐκ κάματος θυμοφθόρον εἴλετο γυίων.
 αὐτὰρ ἐπεὶ λούσεν τε καὶ ἔχρισεν λίπ' ἐλαίῳ,
 ἀμφὶ δέ με χλαῖναν καλὴν βάλεν ἠδὲ χιτῶνα,
 εἶσε δέ μ' εἰσαγαγούσα ἐπὶ θρόνου ἀργυροήλου,
 καλοῦ, δαιδαλέου· ὑπὸ δὲ θρήνυς ποσὶν ἦεν.

- (b) Ὁ τε ἐκ τῆς γῆς πεζὸς ἀμφοτέρων ἰσορρόπου τῆς ναυμαχίας καθεστηκυίας πόλυν τὸν
 ἀγῶνα καὶ ξύστασιν τῆς γνώμης εἶχε, φιλονεικῶν μὲν ὁ αὐτόθεν περὶ τοῦ πλείονος ἤδη καλοῦ,

δεδιότες δὲ οἱ ἐπελθόντες μὴ τῶν παρόντων ἔτι χεῖρω πράξωσι. πάντων γὰρ δὴ ἀνακειμένων τοῖς Ἀθηναίοις ἐς τὰς ναῦς, ὃ τε φόβος ἦν ὑπὲρ τοῦ μέλλοντος οὐδενὶ ἰοικῶς, καὶ διὰ τὸ ἀγχώμαλον ἀνώμαλον καὶ τὴν ἐποψιν τῆς ναυμαχίας ἐκ τῆς γῆς ἠναγκάζοντο ἔχειν. δι' ὀλίγον γὰρ οὔσης τῆς θέας καὶ οὐ πάντων ἅμα ἐς τὸ αὐτὸ σκοπούντων, εἰ μὲν τινες ἴδοιέν πη τοὺς σφετέρους ἐπικρατοῦντας, ἀνεθάρσησάν τε ἂν καὶ πρὸς ἀνάκλησιν θεῶν μὴ στερεῆσαι σφᾶς τῆς σωτηρίας ἐτρέποντο· οἱ δ' ἐπὶ τὸ ἡσώμενον βλέψαντες ὀλοφυρμῷ τε ἅμα μετὰ βοῆς ἐχρῶντο καὶ ἀπὸ τῶν δρωμένων τῆς ὄψεως καὶ τὴν γνώμην μᾶλλον τῶν ἐν τῷ ἔργῳ ἐδουλοῦντο. ἄλλοι δὲ καὶ πρὸς ἀντίπαλόν τι τῆς ναυμαχίας ἀπιδόντες, διὰ τὸ ἀκρίτως ξυνεχῆς τῆς ἀμίλλης καὶ τοῖς σώμασιν αὐτοῖς ἴσα τῇ δόξῃ περιδεῶς ξυναπονεύοντες ἐν τοῖς χαλεπώτατα διήγον· αἰετὶ γὰρ παρ' ὀλίγον ἢ διέφευγον ἢ ἀπώλλυντο. ἦν τε ἐν τῷ αὐτῷ στρατεύματι τῶν Ἀθηναίων, ἕως ἀγχώμαλα ἐναυμάχουν, πάντα ὁμοῦ ἀκοῦσαι, ὀλοφυρμὸς, βοή, νικῶντες, κρατούμενοι, ἄλλα ὅσα ἐν μεγάλῳ κινδύνῳ μέγα στρατόπεδον πολυειδῆ ἀναγκάζοιτο φθέγγεσθαι. παραπλήσια δὲ καὶ οἱ ἐπὶ τῶν νεῶν αὐτοῖς ἔπασχον, πρὶν γε δὴ οἱ Συρακόσιοι καὶ οἱ ξύμμαχοι ἐπὶ πολὺ ἀντισχούσης τῆς ναυμαχίας ἔτρεψάν τε τοὺς Ἀθηναίους καὶ ἐπικείμενοι λαμπρῶς πολλῇ κραυγῇ καὶ διακελευσμῷ χρώμενοι κατεδίωκον ἐς τὴν γῆν. τότε δὲ ὁ μὲν ναυτικὸς στρατὸς, ἄλλος ἄλλῃ, ὅσοι μὴ μετέωροι ἐάλωσαν, κατενεχθέντες ἐξέπεσον ἐς τὸ στρατόπεδον.

B.

Classics.—III.

Three hours.

DR. LEEPER, Examiner.

NOTE.—Candidates will select 12 questions, at least four of which should be on Philology.

1. Briefly describe the procedure of an Attic trial in the time of Demosthenes.
2. In what does the originality of Vergil consist?
3. Give examples of the poetical complexion of 'Tacitus' style.
4. Cæsar's criticism of Terence?
5. Discuss the question whether the *Birds* of Aristophanes was written with a political purpose.
6. Describe the origin and growth of Greek Tragedy.
7. State of parties and principles at stake in contest between Pompey and Cæsar?
8. What were the principal consequences of the Persian War to Greece?
9. State briefly the extent of the conquests of Alexander the Great, and their effects upon the world.
10. Explain the origin and meaning of the terms *curia*, *censor*, *fænus unciarium*, *patres conscripti*, *Quirites*, *paterfamilias*, *publicani*.
11. Compare the Greek and Roman systems of colonization.
12. Explain the terminations of τύπτομαι, τύπτεις, τύπτομεν, τύπτουσι, ἐστί, regor, regimini, regebam.
13. To what Greek roots would you refer ἀνδάνω, ἐννυμι, καίω, πίπτω, πνέω?
14. Illustrate Max Müller's remark that "Sound etymology has nothing to do with sound."
15. Give examples of β taking the place of μ and δ of ν at the beginning of words in Greek.
16. Write etymological notes on *sublimis*, *nebulo*, *pecunia*, *flamen*, *arrhabo*, *bruma*, *calamitas*, *arbiter*, *meditor*, *hostis*.
17. What Greek or Latin words are cognate with *come*, *harvest*, *home*, *rain*?
18. Parse ἀπικάτο, προηδέατο, ἐννώσας, ἔστωσαν, and give the third person plural of the imperfect, pluperfect, and first aorist passive of the Ionic form of ἡττάω.

B.

Classics.—IV.

Three hours.

DR. LEEPER, Examiner.

1. Translate into Latin verse one of the three following passages:—

(a) For Elegiacs—

Even so the gentle Tyrian dame,
When neither grief nor love prevail,

Saw the dear object of her flame,
 The ungrateful Trojan, hoist his sail.
 Aloud she called on him to stay ;
 The wind bore him and her lost words away.
 The doleful Ariadne so
 On the wide shore forsaken stood :
 " False Theseus, whither dost thou go ? "
 Afar false Theseus cut the flood.
 But Bacchus came to her relief :
 Bacchus himself's too weak to ease my grief.

—COWLEY.

(b) For Lyrics—

The glories of our blood and state
 Are shadows, not substantial things ;
 There is no armour against fate ;
 Death lays his icy hand on kings :
 Sceptre and crown
 Must tumble down,
 And in the dust be equal made
 With the poor crooked scythe and spade.
 Some men with swords may reap the field,
 And plant fresh laurels where they kill :
 But their strong nerves at last must yield ;
 They tame but one another still :
 Early or late
 They stoop to fate,
 And must give up their murmuring breath
 When they, pale captives, creep to death.

—J. SHIRLEY.

(c) For Hexameters—

Then, with a heavy groan, Rustum bewail'd :—
 " Oh, that its waves were flowing over me !
 Oh, that I saw its grains of yellow silt
 Roll tumbling in the current o'er my head ! "
 But with a grave, mild voice, Sohrab replied :—
 " Desire not that, my father ! thou must live ;
 For some are born to do great deeds, and live,
 As some are born to be obscured, and die.
 Do thou the deeds I die too young to do,
 And reap a second glory in thine age ;
 Thou art my father, and thy gain is mine.
 But come ! thou seest this great host of men
 Which follow me ; I pray thee, slay not these !
 Let me entreat for them ; what have they done ?
 They follow'd me, my hope, my fame, my star.
 Let them all cross the Oxus back in peace."

2. Translate into Greek verse *one* of the two following passages :—

(a) For Iambic Trimeters—

SILENUS. Whence sailing do you come to Sicily ?
 ULYSSES. From Ilion and from the Trojan toils.
 S. How touched you not at your paternal shore ?
 U. The strength of tempests bore me here by force.
 S. The self-same accident occurred to me.
 U. Were you then driven here by stress of weather ?
 S. Following the Pirates who had kidnapped Bacchus.
 U. What land is this, and who inhabit it ?
 S. Ætna, the loftiest peak in Sicily.
 U. And are there walls and tower-surrounded towns ?
 S. There are not. These lone rocks are bare of men.
 U. And who possess the land ? The race of beasts ?
 S. Cyclops, who live in caverns, not in houses.

(b) For Iambic Trimeters, in the style of Aristophanes—

Mark now, and learn of me the thriving arts,
 By which we parasites contrive to live ;
 Fine rogues we are, my friend, (of that be sure)
 And daintily we gull mankind—Observe !

First I provide myself a nimble thing
 To be my page, a varlet of all crafts;
 Next two new suits for feasts and gala-days,
 Which I promote by turns, when I walk forth
 To sun myself upon the public square;
 There, if perchance I spy some rich dull knave,
 Straight I accost him, do him reverence,
 And, saunt'ring up and down, with idle chat
 Hold him awhile in play; at every word,
 Which his wise worship utters, I stop short
 And bless myself for wonder; if he ventures
 On some vile joke, I blow it to the skies,
 And hold my sides for laughter.

French.

Three hours.

DR. LEEPER, *Examiner.*

1. Translate—

In the charming lines of Béranger one may fancy described the career, the sufferings, the genius, the gentle nature of Goldsmith, and the esteem in which we hold him. Who, of the millions whom he has amused, does not love him? To be the most beloved of English writers, what a title that is for a man! A wild youth, wayward but full of tenderness and affection, quits the country village where his boyhood has been passed in happy musing, in idle shelter, in fond longing to see the great world out of doors, and achieve name and fortune; and after years of dire struggle, and neglect and poverty, his heart turning back as fondly to his native place as it had longed eagerly for change when sheltered there, he writes a book and a poem, full of the recollections and feelings of home—he paints the friends and scenes of his youth, and peoples Auburn and Wakefield with remembrances of Lissoy. Wander he must, but he carries away a home-relic with him, and dies with it on his breast.

2. Translate into English, paying attention to style as well as accuracy—

Les quatre ou cinq années qui s'écoulaient depuis la mort de sa mère jusqu'à son union avec M. Roland lui apportent de rudes, de poignantes et à la fois chétives épreuves. Son père se dérange et se ruine; elle s'en aperçoit, elle veut tout savoir, et il lui faut sourire au monde, à son père, et dissimuler: "J'aimerais mieux le sifflement des javelots et les horreurs de la mêlée, s'écrie-t-elle par moments, que le bruit sourd des traits qui me déchirent; mais c'est la guerre du sage luttant contre le sort." Elle venait de lire Plutarque ou Sénèque, quand elle proférait ce mot stoïque; mais elle avait lu aussi Homère, et elle se disait, dans une image moins tendue et avec sourire: "La gaieté perce quelquefois au milieu de mes chagrins, comme un rayon de soleil à travers les nuages. J'ai grand besoin de philosophie pour soutenir les assauts qui se préparent: j'en ai fait provision; je suis comme Ulysse accroché au figuier: j'attends que le reflux me rende mon vaisseau."—SAINTE-BEUVE.

Sombre Océan, du haut de tes falaises,
 Que j'aime à voir les barques du pêcheur,
 Ou de tes vents, sous l'ombre des mélèzes,
 A respirer la lointaine fraîcheur!
 Je veux ce soir, visitant tes rivages,
 Y promener mes songes les plus chers;
 Encor ému de tes premiers ravages,
 Mon cœur souffrant s'apaise au bruit des mers.
 Sombre Océan, pousse tes cris sauvages!
 J'aime à rêver près de tes flots amers.

Sombre Océan, j'épuiserais ma vie
 A voir s'enfler tes vagues en fureur;
 Mon corps frissonne et mon âme est ravie;
 Tu sais donner un charme à la terreur.
 Depuis le jour où cette mer profonde
 M'apparut noire aux lueurs des éclairs,
 Nos lacs si bleus, la langueur de notre onde
 N'inspirent plus mes amours ni mes vers.
 Sombre Océan, vaste moitié du monde,
 J'aime à chanter près de tes flots amers.

Sombre Océan, parfois ton front s'égaie,
 Epanoui sous l'astre de Vénus;

Et mollement ta forte voix bégaie
 Des mots sacrés à la terre inconnus.
 Et puis ton flux s'élance, roule et saute,
 Comme un galop de coursiers aux crins verts,
 Et se retire en déchirant la côte,
 D'un bruit semblable au rire des enfers.
 Sombre Océan, superbe et terrible hôte,
 J'aime à frémir près de tes flots amers.—EMILE DESCHAMPS.

3. Translate idiomatically—

He finds fault with everything that is said. As he said this, tears came into his eyes. Your interests are at stake. I have no doubt that he will come soon. I am afraid it will rain. I am afraid it will not rain. Do not let that be any objection. He insisted upon your returning. Let us go home before it gets dark. I long to see him again. He has more than he wants. I distrusted his promises. I doubt if there is anything more beautiful. I have not given it to them.

4. Mention traces of the Keltic element in the French language.
5. Distinguish between the masculine and feminine significations of the following substantives :—
 Livre, mémoire, mousse, période, tour, vase, voile, somme.
6. Explain the rule concerning *tout*, and illustrate by translating the following sentences :—*Nous sommes tous prêts à sortir. Nous sommes tout prêts à sortir. De toute autre manière. D'une tout autre manière.*
7. Write a full account of the etymology of the following words :—*Acharner, ladre, seeau, veuf, fouet, connétable, moyen, pleuvoir, assembler, le, rien, témoin.*
8. What peculiarity may be noticed in the declension of the following adjectives and participles :—*Demi, nu, excepté, supposé, ci-joint, y compris, feu ?*
9. Give the two participles of *faire, ouvrir, absoudre, pouvoir, croître* ; and the 2nd pers. sing. pres. subj. of *moudre, savoir, mourir, vêtir, joindre, boire, valoir, asseoir, dire, acquérir.*

German.

Three hours.

JOHN A. JACKSON, Esq., B.A., Examiner.

1. Translate into German—

Under his administration the war was carried on with new vigour, till at last successes by sea and land began to come as fast as misfortunes had before. In September, 1759, James Wolfe, a young General of Pitt's choosing, scaled with his forces the almost inaccessible heights on which Quebec stands, completely defeated the French army, and fell in the moment of victory. As he lay dying, he heard an officer exclaim, "They run!" "Who run?" asked Wolfe, raising himself. "The enemy." "Then God be praised! I shall die happy." The French general, the Marquess of Montcalm, was likewise mortally wounded. "So much the better," said he, "I shall not then live to see the surrender of Quebec." Five days after the battle Quebec capitulated, and within a year the whole of the French colony of Canada was in the hands of the British. At sea, Admiral Sir Edward Hawke gained, off the Point of Quiberon, on the coast of Brittany, a signal victory over the French (Nov. 20, 1759.) The English were superior in force; but as a storm was blowing, and the French lay close in shore, among rocks and sandbanks, the perils of the attack were great.

2. Translate into English—

O! nimmer will ich seinen Glauben schelten
 An der Gestirne, an der Geister Macht.
 Nicht bloss der Stolz des Menschen füllt den Raum
 Mit Geistern, mit geheimnissvollen Kräften,
 Auch für ein liebend Herz ist die gemeine
 Natur zu eng, und tiefere Bedeutung
 Liegt in dem Märchen meiner Kinderjahre,
 Als in der Wahrheit, die das Leben lehrt.
 Die heitre Welt der Wunder ist's allein,
 Die dem entzückten Herzen Antwort gibt,
 Die ihre ew'gen Räume mir eröffnet,
 Mir tausend Zweige reich entgegenstreckt,
 Worauf der trunkne Geist sich selig wiegt.
 Die Fabel ist der Liebe Heimatwelt,
 Gern wohnt sie unter Feen, Talismanen,
 Glaubt gern an Götter, weil sie göttlich ist.
 Die alten Fabelwesen sind nicht mehr,
 Das reizende Geschlecht ist ausgewandert;
 Doch eine Sprache braucht das Herz, es bringt
 Der alte Trieb die alten Namen wieder,

Und an dem Sternenhimmel gehn sie jetzt,
 Die sonst im Leben freundlich mit gewandelt.
 Dort winken sie dem Liebenden herab,
 Und jedes Grosse bringt uns Jupiter
 Noch diesen Tag, und Venus jedes Schöne

3. Translate into English—

Unterdessen hatte Graf Doria den ganzen Tag und die ganze Nacht seinen Freund Vieilleville unter den auf dem Wasser schwimmenden Körpern suchen lassen, und war ganz trostlos über diesen Verlust. Um Nachricht von ihm einzuziehen, liess er den Capitän Napoleon, einen Corsen, mit der Regentin auslaufen, und in dieser Absicht nach Neapel segeln. Sie waren nicht weit gekommen so entdeckten sie eine Galeere, die ihnen kaiserlich schien, doch sahen sie auf dem Mastbaum einen Matrosen mit einer weissen Flagge; bald darauf hörten sie auch Musik und Frankreich rufen. Vieilleville erkannte sogleich die Regentin, und die Freude des Wiedersehens war allgemein. Noch eine andere Galeere, die man ihm von Neapel aus nachgeschickt hatte, nahm er durch eine Kriegslist weg, und kam, anstatt gefangen zu seyn, als Herr von zwei Galeeren bei der Armee wieder an, wo er aber seinen Freund Doria nicht mehr antraf, der mit zwei Galeeren nach Frankreich geschickt worden war. Da die Belagerung von Neapel, die Lautrec unternommen hatte, sehr langsam von statten ging, so nahm Vieilleville seinen Abschied, und dieses zu seinem Glücke; denn drei Monate darauf riss die Pest ein, welche die meisten Officiere der Armee dahinraffte.

4. Give the etymology of the following words—

Pflugschar, flück (fledged,) Bucht, Kunde, hübsch, welsch, Nachtigall, leutselig, Flucht.

5. Translate—

We are just going to try it. I would fain have asked him. The steamboat will not arrive till the day after to-morrow. Will you take another glass of wine? I presume you have often been in London before. You have said it yourself, you know. He strives after fame. From the cradle to the grave. I shall jump for joy. He came to the minute. It is my turn. The book lies on the table. I put the book on the table.

6. Give the English equivalents of the following words—

Grimmen, Schenkel, knockig, schwemmen, frömmeln, Kater, Dickicht, Unthat, Erziehungsanstalt, abermals, Afterkönig, Erzfeind, verspielen, vergolden, verlernen, verjüngen.

7. Translate—

Sie lässt mich stehn, mir selber überlassen,
 Sie theilt mit mir den Todestropfen
 Und schiekt mich weg! von ihrer Seite weg!
 Sie zieht mich an und stösst ins Leben mich zurück
 O Egmont, welch preiswürdig Loos fällt dir!
 Sie geht voran;
 Sie bringt den ganzen Himmel dir entgegen!
 Und soll ich folgen? wieder seitwärts stehn?
 Den unauslöschlichen Neid
 In jene Wohnungen hinüber tragen?
 Auf Erden ist kein Bleiben mehr für mich,
 Und Höll' und Himmel bieten gleiche Qual.

8. What are the general rules for the order in German compound sentences of the subject, the verb, the auxiliary verb, and the adverb?

English.

Three hours.

DR. LEEPER, *Examiner.*

1. Explain how languages may be classified morphologically, and give examples.
2. Give the groups and subdivisions of the Teutonic dialects, and indicate the districts where they were (or are) spoken.
3. Illustrate the operation of "Grimm's Law" in the following words:—Five, yesterday, dust, thirst, know.
4. Write a note upon the Keltic element in the English language.
5. Give examples of words derived from the following sources:—Hebrew, Persian, Chinese, Portuguese, Hindu, Dutch, Polynesian.
6. The English Alphabet has been described as "inconsistent, insufficient, redundant, and erroneous." Examine this statement.
7. Traces of grammatical gender still remaining in English?

8. Etymology of *jest*, *money*, *forfeit*, *gossamer*, *Whig*, *teetotaller*, *alloy*, *Euphuism*, *sterling*, *squirrel*, *copper*.
9. Analyse etymologically the following forms:—Children, lesser, could, methinks, utmost, bequest, nightingale, eastern.
10. Explain, and, if possible, illustrate by quotations, the words italicised in the following:—
 - (a) "And a certain woman cast a piece of a millstone upon Abimelech's head, and *all to brake* his skull."
 - (b) "But *and if* that evil servant shall say in his heart, *My lord delayeth his coming*"—
 - (c) "The new moons and Sabbaths, the calling of assemblies, I cannot *away with*."
 - (d) "*Or ever* the silver cord be loosed, or the golden bowl be broken."
 - (e) "Thus saith the Lord God: Howl ye! *Woe worth* the day!"
 - (f) "*Sith* thou hast not hated blood, even blood shall pursue thee."
11. Sketch briefly the history of the English Sonnet, and write out any one sonnet that you consider especially beautiful.
12. What attempts have been made to introduce the metres of Greek and Latin poetry into English? Quote *briefly* from any poems you may refer to.
13. A short study of any one of Shakespeare's women.
14. Describe briefly in your own words the contents of the poems from which the following lines are taken:—
 - (a) "Life, like a dome of many-coloured glass,
Stains the white radiance of Eternity,
Until Death tramples it to fragments."
 - (b) "He spake of love, such love as spirits feel
In worlds whose course is equable and pure."
 - (c) "He prayeth best, who loveth best
All things both great and small."
 - (d) "Stop! for thy tread is on an empire's dust!
An earthquake's spoil is sepulchred below!"
 - (e) "For woman is not undeveloped man,
But diverse: could we make her as the man,
Sweet Love were slain: his dearest bond is this,
Not like to like, but like in difference."
 - (f) "A thing of beauty is a joy for ever."

History.

Three hours.

DR. LEEPER, *Examiner*.

1. Sketch the growth of the power of the House of Commons.
2. Mention the chief provisions of—
 - (a) Magna Charta.
 - (b) Habeas Corpus Act.
 - (c) Treaty of Utrecht.
 - (d) Peace of Amiens.
3. Give some account of the Synod of Whitby and of Theodore of Tarsus.
4. Describe the character and intellect of the younger Pitt, and the nature of his leading political principles.
5. Sketch briefly the history of British Colonization.
6. Give a description of English Feudalism.
7. Write notes upon—
 - (a) The Statute of Mortmain.
 - (b) The Navigation Laws.
 - (c) The Armed Neutrality.
 - (d) The Revocation of the Edict of Nantes.
 - (e) The Solemn League and Covenant.
8. State accurately the causes of the American War of Independence.
9. What do you know about the English Reformation,—the reasons for it, the stages in it, and the characters of those who figured in it most prominently?
10. Sketch the history of Continental Affairs, and the relation of England to them, from 1876 to the present day.