# CORNELL UNIVERSITY OFFICIAL PUBLICATION 

SAMPLES OF<br>ENTRANCE AND SCHOLARSHIP EXAMINATION PAPERS<br>1916

## ENTRANCE EXAMINATION PAPERS

## ENGLISH I

1. " If, in the opinion of the people, the distribution or modification of the constitutional powers be in any particular wrong, let it be corrected by an amendment in the way which the constitution designates."

How many clauses are there in this sentence ? State the grammatical relation of each. Name the part of speech and give the syntax of each italicized word. Make a list of the phrases in the sentence.
2. On one of the following topics write an expository composition about 300 words in length. Plan carefully, so that each paragraph shall be a definite unit and shall mark a definite stage in the discussion; allow time for revision of spelling, punctuation, and sentence structure.
a. How to read a weather map.
b. Some important uses of lead (or copper, or zinc).
c. The founding of Jamestown (or Plymouth, or Philadelphia).
d. The meaning of the term "The High Seas."
e. My study of English poems (or novels, or plays).
f. Personal advantages of the study of Latin.
g. On reading fairy stories.
b. The dependence of the city on the country.
i. Habits of squirrels (or rabbits).
j. A useful weed.
3. On one of the following topics write a narrative or a description about 150 words in length. Plan in advance and revise carefully, as suggested under 2.
a. The school library (or reading room).
b. A clown in one of Shakespeare's plays.
c. The organ-grinder's monkey.
d. A trip on-river (or on - lake).
e. A view from a steeple.
f. Getting breakfast in camp.
g. The household pet.
h. One of my school friends.

## ENGLISH II

Answer one question in each group.
Group I-Reading. [Answer in about 150 words.]

1. Tell a story about a person of distinction in a novel or a play that you read in school.
2. Describe, as you have pictured him to yourself, a person of distinction in a novel or a play that you read in school.
3. Give your understanding of some significant idea derived from,an essay or a biography that you read in school.

> Group II--Drama

1. Describe the character of Polonius.
2. What use in the development of the plot does Shakespeare make of superstition in Macbeth or in Hamlet or in Tulius Caesar?
3. What causes led to the quarrel between Cassius and Brutus?
4. Show how the character of Brutus is illustrated in his conduct toward Lucius.

## Group III—Poetry

1. Explain the significance of Milton's pedigrees at the beginning of L'Allegro and of Il Penseroso.
2. For what occasion did Milton write Comus? What was his real purpose in Comus ?
3. What was the Holy Grail? Of what value was the Grail in the organization of Arthur's Knights?
4. "And therewithal came on him the weird rhyme, ' From the great deep to the great deep he goes '.'"
Explain the meaning of the second line. Why is this called " the weird rhyme." ?
5. What is meant by a lyric poem? Explain why and how the poems of Wordsworth, Keats, and Shelley in The Golden Treasury are mainly lyrics.

## Group IV-Oratory

1. Webster, in the Bunker Hill Oration, says, "We live in a most extraordinary. age." To what "age" does Webster refer? Enumerate some of the grounds of the assertion.
2. State the proposition on which Macaulay argued in the first Speech on Copyright. Mention some of Macaulay's contentions.
3. State three pieces of advice which Washington gives in the Farewell Address. Have any events in American history seemed to make Washington's advice particularly valuable? Explain.
4. Point out some of the ways and means by which Burke makes clear his argument for conciliation.
Group V-Essays
5. What was Macaulay's opinion of Johnson's Dictionary? of The Lives of the Poets?
6. State the general impressions of Burns which you get from Carlyle's essay ? What poems of Burns seem to you to corroborate these impressions ?
7. What does Emerson mean by gentleman, by fashion, by society ?

## GREEK

A.

Translation into English from the Anabasis:
















 $\boldsymbol{\lambda \pi i}$ 'Ioviás, $8 \theta$ evrep $j \lambda \theta$. 18

1. Write the first person sing. of the indicative, subjunctive, optative, the infinitive and the participle of iv$\tau \eta \mu$ in the first and the second aorist, of $\eta$ "bearav in the second perfect, of кara入дұ\% $\mu$ evov in the second aorist.
2. Explain the use of the case in re $\theta \nu \eta \kappa o ́ t a 1.3, \dot{\eta} \mu$ épas 1.

 dxione 1. 6, $\lambda$ íyou 1. 16.
3. Explain the use of the participles on $\mu$ avoîraa 1. 9, dfordeoapévors 1. II.
4. What is the dependence of the clause à elxor 1. ro?

## B.

Translation into Greck:
When it seemed best to Cyrus to proceed against the king, he therefore collected his soldiers as quickly as possible and started from Sardis ostensibly against the Pisidians. For these [people] were said to be plundering the cities of his province. But afterwards it became plain to all that he wished to reign in his brother's stead. Cyrus himself however died in the same battle in which the Persians were defeated by the Greeks.

> C.

## HOMER'S ILIAD.

## 1. Translate :





 ..... 5
 ..... 6
 ..... 7
 ..... 8
 ..... 9
 ..... 10
 ..... II
 ..... 12
 ..... 13
2. What kind of verse is this? What is caesura? Indicate the quantities, the feet, the caesura, in verses 1,$9 ; 13$. How do Greek dactyls differ from English dactyls?
3. Explain tmesis and illustrate from this passage.
4. Outline the contents of book two of the Iliad.

## LATIN

A separate book should be used for each set of questions, i. e. one book for I, another for II, etc.

At the beginning of one of the books, state how long you have studied Latin and give the exact amount of each Latin author you have read.

## I

## First Year Latin

1. Write the genitive and ablative, singular, and the genitive and accusative, plural, of : summa vis, solus miles, majus praemium, uterque exercitus, tu, hoc tempus.
2. Give the comparative and superlative degrees of bene, superus, vetus, pulcher, crudeliter, diu.
3. Give a synopsis of egredior and conor in the second person, plural (indicative and subjunctive).
4. Write the infinitives and participles, active and passive, (with the meaning of each) of moneo.
5. Give the principal parts of maneo, desum, aufero, consisto, obsideo, conjungo, patior, mereor, loquor.
6. Write in both active and passive voice, (a) the first person, singular, of the present and future, indicative, and
(b) the second person, plural, of the present and pluperfect, subjunctive, of laudo and capio.
7. Translate into Latin:
a. If you had returned from the country, I should have asked you to go to Capua with me.
b. I ordered you to find out how many men were in Rome.
c. I ought to be obeyed by you, that no harm may be done to your fatherland.
d. I think that this mountain is two thousand feet higher than the other.
e. We shall need soldiers of great valor.
f. Let no one tell me that he will join the army, unless he intends to fight till victory is won.

## 8. Translate :

Caesari renuntiatur Helvetüs esse in animo per agrum Sequanorum et Haeduorum iter in Santonum fines facere, qui uon longe a Tolsatium finibus absunt, quae civitas est in provincia. Caesar nolebat homines bellicosos, populi Romani inimicos, provinciae esse finitimos. Ob eas res ei munitioni quam fecerat $T$. Labienum legaturm proefecit, et ipse in Italiam magnis itineribus contendit duasque ibi legiones conscribit et tres, quae circum Aquileiam hiemabant, ex hibernis educit et cum his quinque legionibus ire in ulteriorem Galliam contendit.

## II

## Latin Grammar

1-6. Answer the first six questions under First-Year Latin ("I'" of the present paper).
7. Distinguish the following in meaning of use : quamquam, quamvis; quia, quod, cum (=since); ne, non; $u t, q u 0$ (in purpose clauses); the different tenses of the infinitive ; se, ipsum ; utrum, num (= whether.)
8. Mention five ways of expressing purpose in Latin.
9. Mention the different constructions taken by $d u m=$ till ; $d u m=$ while, and as long as ; cum, in its various meanings ; si, in the various types of conditions.

## III

## Second Year Latin <br> Caisar

## 1. Translate:

Hujus est civitatis longe amplissima auctoritas omnis oræ maritimæ regionum earum ; quod et naves habent Veneti plurimas, quibus in Britanniam navigare consuerunt, et scientia atque usu uauticarum rerum reliquos antecedunt, et in magno impetu maris atque aperto paucis portibus interjectis, quos tenent ipsi, ommes fere, qui eo mari uti consuerant habent vectigales. Ab iis fit initium retinendi Sili atque Velani quod per eos suos se obsides, quos Crasso. dedissent, recuperaturos existimabant. Horum auctoritate finitimi adducti (ut sunt Callorum subita et repentina consilia), eadem de causa Trebium • Terrasidiumque retinent, et celeriter missis legatis per suos principes inter se conjurant, nihil nisi communi consilio acturos eundemque omuis fortunæ exitum esse laturos.

Account for the case of each italicized noun, pronoun, adjective and participle and for the mood and tense of each italicized verb in the above passage.
2. Give the principal parts of : consuerunt, antecedunt, ixterjectis, uti, retinendi, dedissent, adducti, sunt, missis, acturos.
3. Write the genitive and ablative, singular, and the genitive and accusative plural of : earum (in all genders), usu, maris, portibus, obsides, consilia, principes, se, nihil.
4. Give the different degrees of comparison of each of the following : plurimos, celeriter, magno, amplissima, longe.
5. Translate the following and write the form that each italicized word would have in direct discourse :

Cum per eorum fines triduum iter fecisset, inveniebat ex captivis Sabim flumen ab castris suis non amplius milia passuum decem abesse : trans id flumen omnes Nervios consedisse adventumque ibi Romanorum exspectare una cum Atrebatibus et Veromanduis, finitimis suis; exspectari etiam ab his Aduatucorum copias atque esse in itinere: mulieres, quique per ætatem ad pugnam inutiles viderentur, in eum locum conjecisse, quo propter paludes exercitui aditus non esset.

## IV <br> Third Year Latin <br> Cicero and Composition

I. Translate (a) if you have read the oration; otherwise (b) :
(a) Sit Scipio ille clarus, cujus consilio atque virtute Hannibal in Africam redire atque Italia decedere coactus est ; ornetur alter eximia laude Africanus, qui duas urbes huic imperio infestissimas, Karthaginem Numantiamque, delevit; habeatur vir egregius Paulus ille, cujus currum rex potentissimus quondam et nobilissimus Perses honestavit ; sit acterna gloria Marius, qui bis Italiam obsidione et metu servitutis liberavit ; anteponatur omnibus Pompeius, cujus res gestae atque virtutes isdem quibus solis cursus regionibus ac terminis continentur: erit profecto inter horum laudes aliquid loci nóstrae gloriae, nisi forte majus est patefacere nobis provincias quo exire possimus, quam curare ut etiam illi, qui absunt babeant quo victores revertantur.

Account for the construction of each of the italicized words. Who was Scipio? Hannibal? Alter Africanus?
(b) Difficile est in Asia, Cilicia, Syria regnisque interiorum nationums ita versari nostrum imperatorem, ut nihil aliud nisi de hoste ac de laude cogitet ; deinde etiam si qui sunt pudore ac temperantia moderatiores, tamen eos esse tales propter multitudinem cupidorum hominum nemo arbitratur. Difficile est dictu, Quirites, quanto in odio simus apud exteras nationes propter eorum, quos ad eas per hos annos cum imperio misimus, libidines et injurias. Quod enim fanum putatis in illis terris nostris magistratibus religiosum, quam civitatem sanctam, quam domum satis clausam ac munitam fuisse? Urbes jam locupletes et copiosae requiruntur, quibus causa belli propter diripiendi cupiditatem inferatur.

Account for the construction of each of the italicized words.
2. Translate into Latin, marking all long vowels in what you write:
a. 1. We remained three days at Geneva for the purpose of writing letters.
2. It was not allowed a patrician to become a tribune of the plebs.

3, I asked him whether he would have come, if I had gone home.
4. Do not ask what I will do.
5. We prevented them from injuring themselves.
b. In the following year Caesar led his army a second time into Germany, because the Luebi had sent help to the Treveri. He crossed the Rhine by a bridge a little above that place where he had led his army across two years before. When he inquired of the Ubui where the Suebi were, he was informed that, as soon as they had learned of Caesar's approach, they had betaken themselves into the midst of a forest of boundless extent, which is called Bacenis.

## V

Fourth Year Latin

## 1. Translate :

Aeneas celsain puppi, jam certus eundi, Carpebat somnos, rebus jam rite paratis. Huic se forma dei vultu redeuntis eodem Obtulit in somnis, rursusque ita visa monere est, Omnia Mercurio similis, vocemque coloremque Et crines flavos et membra decora juventa : " Nate dea potes hoc sub casu ducere somnos, Nec, quae te circum stent deinde pericula, cernis, Demens, nec Zephyros audis spirare secundos? Illa dolos dirumque nefas in pectore versat, Certa mori, variosque irarum concitat aestus. Non fugis hinc praeceps, dum praecipitare potestas?
Jam mare turbari trabibus saevasque videbis Collucere faces, jam fervere litora flammis, Si te his attigerit terris Aurora morantem.
Heia age, rumpe moras : varium et mutabile semper Femina." Sic fatus nocti se immiscuit atrae.

Account for the construction of each of the italicized words.

Explain the allusion in illa.
2. Decline: huic, dei; vultu; codem; vocem; te; illa; pectore; aestus; mare; litora, atrae.

Give the principal parts of : eundi; redeuntis; obtulit; potes; stent; mori; videbis; attigerit; rumpe; fatus.
3. Write out the last three lines of the above passage, indicating the metrical feet and the length of each syllable.
4. When did Vergil live ? Outline the contents of the first and fourth books of the Aeneid.

## FIRST YEAR GERMAN

N. B. State where and when you have studied German.

## I.

At the option of the candidate, $20 \%$ of the $100 \%$ may be counted on an oral test to be given in connection with this paper. Candidates not electing the oral test must answer question VII.

## II.

## Translate into English:

Orüberden nabm fein Sdmefterden an ber faand und fprad. .,Seit bie Mutter tot ift, baben wir teine gute Stunbe mebr; bie Stiefmutter \{dlägt unzె alle Tage, und wenn wir zu ibr fom= men, ftößt fie uns mit ben Füben fort. Die harten Brottruften, bie übrig bleiben, finb unjere Speife, unb bem Sgündlein unter 5 bem エifd gebt's beffer: bell svirft fie bod mandmal einen guten Bifīen јu. Wenn bazz unfere Whtter bü̈ßte! Somm, wir mollen miteinanber in bie weite $\mathfrak{W}$ elt gehen." Sie gingen ben ganzen Tag über Wiejen, Jelber und Steine, und wenn eg
 weinen julammen!" Ybendes tamenfie in einen groken Walb und toaren fo muibe bon fammer, §unger unb bem langen $\mathfrak{W e g}$, baf fie fid in einen boblen Baum festen und einfdliefen.
$\mathfrak{H}$ in anbern Morgen, alz fie aufmaditen, ftanb bie Sonne fdion bod am Simmel unb faien beip in ben Baum ginein. Da fprad 15 bas Brüberdjen: ,, Sdpefterden, mid birftet, wenn id ein Brünnlein waübte, id ginge und tränfe einmal; id meine, id börte einę raulden."

## III.

1. Give the principal parts, with the auxiliary of the perfect tense, and the third person singular present indicative (model: weggehen, ging weg, ist weggegangen, geht weg) of nahm (1. 1), schlägt (1.3), stösst . . fort (1.4), bleiben (1. 5), wirft . . . zu (1. 6.7), einschliefen (1. 13), schien . . . hinein (1. 15).
2. Give third person singular of lesen in all tenses, indicative and subjunctive modes, active and passive voice.
3. Give nominative and genitive singular and nominative plural with corresponding form of the definite article of: Hand (1), Mutter (2), Stunde (2), Füssen (4), Hündlein (5), Felder (9), Horzen (10), Wald (i1).
4. Decline throughout : der grösste Mann; diese sehr alte Frau; unser liebes, gutes Kind.
5. Form German sentences using words denoting the opposite of : arm, lang, oben, gross, traurig, gut.
6. Illustrate three different kinds of word order in three German sentences using the verb aufstehen.
IV.

Folgende Fragen sind auf deutsch in ganzen Sätzen zu beantworten :

1. Was ist eine Stiefmutter?
2. Warum wollten die Kinder in die weite Welt gehen ?
3. Wieviel Uhr ist es jetzt ? (Write out numbers).
4. Was ist der Unterschied zwischen einem Milchglas und einem Glas Milch?
5. Womit schreibt man?
6. Wann sind Sie geboren? (Write out date).

## V.

Complete the following sentences :

1. Ich kam-Fuss, mein Freund kam-Wagen.
2. Sie sitzt-Tisch und bittet-ein Stück Brot.
3. Er ging-Hause, er wohnt-sein Onkel.
4. Ich bin stolz-mein-- schön- Schwester.

## VI.

## Translate into German :

This seems to be the longest day of the year. I have never worked so much in one afternoon. Tomorrow I can go home perhaps. The other students de not look happy. I believe, they think that these questions are difficult. If they had worked a little more, they would find them very easy. But we can all go home soon, for it is nearly six o' clock.
VII.
(Only for those not taking the oral test ; compare I).
(a) Beschreiben Sie in 10.15 einfachen Satzen die Stadt Ithaca. I

## or

(b) Paraphrase in simple German prose some German poem you have learned. (For example die Lorelei; der gute Kamerad, etc).

## SECOND YEAR GERMAN

N. B. State where and how long you have studied German.

At the option of the candidate, $20 \%$ of the $100 \%$ may be counted on an oral test to be given in connection with this paper. Candidates not electing this oral test must answer question $\mathbf{V}$.

## I.

Translate into English:
a) Der \&ame and feine Gefellen.
 \&otwen, unb fie zogen miteinanber auf bie Jagb in tinen $\mathfrak{W a l b}$.
$\mathfrak{2 l}$ fie nun einen §irid gefangeniunb in bier Teile geteilt batten, fprad ber Qötwe: ,, $\mathfrak{j h r}$ wift, bás ein Teil mein ift, alz eurem 5 Sefellen; Daş zrweite aber gehört mir, alz̉ bem Rönige unter ben Tieren; bazz britte aber will id barum, weil id mehr banad gelaufen bin unb mehr gearbeitet habe, ald ihr alle brei zufammen; wer aber bna bierte baben will, der muß ez mir mit Getwalt neb̆men.
b) Die ungleiden Trile.

Cin Fifider hatte einen auperorbentlid grozen Fiifd gefangen; er befdlob, ibn bem Sönig zu Gringen, ber ein Riebhaber von Seltenbeiten war. Gr fam mit feinem Fifide und berlangte ben Siönig zu fpreden; ber Diener bollte ibn aber nidt borlaffen, 15 biz er ibm bie §älfte von bem verfprad, wag er yom תönige befommen würbe. Der fiönig betwunberte ben Fifid und befabl,
 Befebl hörte, fagte er: „Mrein, gnäDiger Serr, nidt hunbert $\mathfrak{T a}$ er, fonbern Gunbert Stofitreide." Berwunbert fragte ber 20 Rönig nad bem Grunbe folder Mebe; Da erzäblte ber Filduer, wie er nidt eber borgelaffen morbensfei, als biz er bem Diener bie $\mathfrak{F}$ älfte bon bem, twaz̉ ber Sönig ibm geben toürbe, berfproden $\mathfrak{h a t t e}$. Da fagte ber Яiönig: ,Du folft gunbert Taler und Gunbert Stoditreide für beinen Fiifa betommen; bu nimmit bie Taler, unb ber Diener bie Streide." Unb Dabei blieb ę̄.
II.

1. Decline in both numbers: Der Löwe (1. 5); Die ungleichen Teile (1. 11); die Hälfte (1. 16); gnädiger Herr (1. 19).
2. Give the principal parts, the perfect tense with auxiliary, and the present indicative active third person of the following verbs (model: weggehen, ging weg, ist weggegangen, geht weg): zogen (1. 3); gefangen (1. 4); wisst (1. 5); nehmen (1. 10); beschloss (1. 13); kam (1. 14); befahl (1. 17); geben (1. 18); vorgelassen (1. 22).
3. Inflect in the mood and tense in which they are found in the text, the verbs : sprach (1.5); gelaufen bin (1.8); will (1.9).
4. Explain the construction of : als eurem Gesellen (1.56); the mood of : bekommen würde (1. 17).
5. Point out a case of indirect discourse in lines 21 ff ., and change the statement into direct discourse.
III.

## Translate into German :

The lion, the fox and the ass went on a hunt and caught a large stag. The lion commanded the ass to divide the booty (Beute) into parts, and the ass did so, making three equal parts. The lion was enraged (erzürnt) and tore the ass to pieces (infinitive zerreissen). Then he asked the fox to divide the booty. The latter put all three parts together and gave them to the lion. "Tell me, my friend", said the lion, "who taught you how to divide so well"? "This one here", answered the fox, pointing to the dead ass.
IV.

Bilden Sie einige Fragen und Antworten in deutscher Sprache (in etwa 35-40 Wörtern).
V.
(Not to be answered by candidates electing the oral test).
Beschreiben Sie in etwa 75 deutschen Wörtern eine Reise auf der Eisenbahn.

## THIRD YEAR GERMAN

N. B. State where and how long you have studied German.
I.

At the option of the candidate, $30 \%$ of the $100 \%$ may be counted on an oral teat to be given in connection with this paper. Candidates not electing this oral test must answer question VI.

## II.

Translate the following passages:
A. Ie näber er biefer reizenben degenb fam, befto angenebmer war es ibm, bak er einige $W_{30 \text { den }}$ auf bem \&anbe zubringen
follte. Ex mupte aus eigener ©̌rfabrung, baß man auf bem Lanbe, two man bon ben bielerlei Bergnügungen ber Stabt $\mathfrak{a b}=$ geidnitten ift, fdnell befannt und befreundet wirb, ba man fid, 5 auf eine tleine ©sefelfidaft befdränit, viel leidter und viel früher nabe ritưt. Ctroa eine Stunbe bor bem \&anbgut feiner $\mathfrak{B e r w a n b t e n}$ bog ber $\mathfrak{W e g}$ bon ber Sauptftraße ab. Der Sutjder beutete auf einen Fuproeg, ber in ben Wald lief; ber Fjabroeg menbe fid um ben ganzen Wald ber, fagte er, bod auf 10
 Sdló binaufgelangen. Der junge Dlann ftieg aus. Er \{ah eine mit Walb betwadiene 2utbobe vor fid unb glaubte, man mü̆te bon biefer eine weite $\mathfrak{X u s ̧ f i d a t ~ i n ~ b a z ~} \mathfrak{I a l}$ genießen. ©r liés alfo den Wagen weiterfabren unb jtieg ben Seitenpfab hinan. 15 Ein $\mathfrak{W a l b}$ bou pradtbolfen Tannen nabm ibn auf; nie batte er biefen Baum fo fräftig, fo majeftätifad gefeben. Juerft gab er fid ganz bem Genuib ber ©injanteit bin, bod nad unb nad murbe igm bas̊ Steigen \{d,perer, befonberz ba ber Berg fid auf cinmal fteiler zu ergeben fdien. Enblid hatte er ben Gipfel 20 erreidt, aber nod offnete fid teine $\mathfrak{Y u f f i d t . ~ S d o n ~ i d a l t ~ e r ~}$ innerlid auf ben Rutider unb auf feine eigene Torbeit, bie ibn berleitet gatten, fid in einem fremben Walbe zu berirren, ba fah er, nadbem er einige bunbert Sdritte lveitergegangen, ou
 fфimmern.
B. Benjamin Franflin, ber in ben leģten widtigen
 ragenbe Ftolle \{pielte, war ein edter Norbameritaner. Er bejá alle Eigenjdaften ber fogenannten praftijden PReniden, 30 batte bauptfädlid nur für bie פbirtlidfeiten bes \&ebenze Sinn, unb bei aller feftigfeit ber Uebergeugung betwabrte er fidy fetz eine tweife $\mathfrak{F u g h}$ in ber Beurteilung ber Dinge. Edt ameritanifa war aud bie ©refdidte feineş \&ebense. Wie fo biele feiner groben \&anbsteute berbantte er feinen Erfolg nur feiner eigenen 35 Tudtigleit. Sin groker Yrmut geboren, batte er fid burd fleif unb Slugbeit ein bebeutenbes Bermögen exporben und ald Goründer bon Fubbrudereien unb 3eitungen großen Einfluß veridafft. Yukerbem aber batte er fid fdon feit langer Beit nidt nur burd politijde und philofophijde Sdriften, fonbern 40 aud burd Entbedungen auf bem Gebiete ber Maturivifienidaften berulpmt gemadt.

## III.

Grammatical questions based on the preceding passages for translation.

1. Give the principal parts, with the auxiliary of the perfect tense, and the third person singular present indicative (model: weggehen, ging weg, ist weggegangen, geht weg) of the following verbs: kam (1), zubringen (2), wuszte (3), bog ...ab (8), wende (10), stieg aus (i2), weiterfahren (15), besasz (30), erworben (37), verschafft (39).
2. Give, with the definite article in each case, the nominative and genitive singular, and the nominative plural of : Lande (2), Stadt (4), Wald (9), Fusz (in), Tal (14), Torheit (22), Jahren (28), Erfolg (35), Gründer (38), Schriften (40).
3. Decline throughout the singular only : kürzerer Zeit (11), einem fremden Walde (23), throughout the plural only : prachtvollen Tannen (16); throughout the singular and plural : dieser reizenden Gegend (1).
4. Give and explain the cases of the following words: Gegend (1), einige hundert Schritte (24), Ausbruch (28), sich (36), Entdeckungen (41).
5. Give and explain the mood of : Könne (in) and müsse (14). Could any other forms be substituted for these? If so, which ?
IV.

Write to a friend a German letter of about 60 words, properly dated, addressed, and signed, asking for the return of a sum of money which you lent him or her, and which you need now for the purchase of books.

> V.

## Translate into German :

I met Mr. Heyden on the train yesterday and asked him, where he intended to spend the summer and he told me that he himself would remain in the city. His wife and three children, however, will visit relatives in Maine. I do
not know if you have heard of the death of his only brother who was a much older man than he. You probably never knew him for he lived a very quiet life. But as one of the important merchants of our city he was a man of influence although his name did not often appear in the newspapers. He died in March after a short illness. If this had not happened, Mr. Heyden would have gone to South America this summer, in order to confer (sich beraten) with some South American friends with whom he became acquainted when they were students at our University. They have written him that the war in Europe has made the prospects (Aussichten) for his business very good.

## VI.

(Only for those who do not take the oral test).
Write an exercise in German, of about 75 words, on one of the following topics: Beschreibung eines schönen Spaziergangs or Der Wert des Studiums der neueren Sprachen.

## FIRST YEAR FRENCH

## Part I

Oral examination
Part II
I. Inflect the following tenses :

Present indicative of savoir.
Imperfect indicative of valoir.
Past definite of finir.
Future of courin.
Conditional of aller.
Past indefinite of se rappeler.
Present subjunctive of voir.
Imperfect subjunctive of connaitre.
Give the principal parts of conduire, rompre, envoyer.
Give the plural of : madame, tableau, bras.
Give the feminine of : heureux, vieux, ces, blanc.

## II. Translate into French:

1. How beautiful the country is at this season of the year. 2. There are many small birds in these woods. 3. These white ones are much larger than those you have in your hand. 4. Which flowers did you buy at the market yesterday? 5. Has she arrived yet? 6. I shall not give them to her. 7. We undressed early and went to bed. 8. Tell him it is I. 9. Although it was cold weather, I was warm. Io. I am glad she is satisfied with it. ir. Here is mine but I cannot find yours. 12. I have found what pleases you. 13. What used to interest you? 14. I shall give you what you need at eight o'clock this evening. 15 . Let him go at once.

## III. Translate into English:

Le frère du Coeur de Lion lui succéda. Le roi de France devenu l'ennemi de son ancien allié, soutint contre lui un prétendant, le jeune Arthur, fils d'un frère de Jean sans Terre; et, lorsque Jean eut poignardé celui-ci de sa propre main, Philippe cita le meurtrier à comparaître par-devant les douze grands vassaux de la couronne ou pairs du royaume. Sur son refus, il confisqua ses fiefs, entra avec une armée dans la Normandie, que Jean ne défendit pas, et prit le château Gaillard, forte place bâtie par Richard, et qui résista six mois. Le pape Innocent III voulut imposer la paix aux deux rois; Philippe gagnait trop à cette guerre contre un lâche ennemi pour y consentir; il répondit fièrement au pontife ; et, poussant vivement ses succès, mit la main sur toutes les villes de la province, même sur Rouen, " la très riche cité, pleine de nobles hommes et chef de toute la Normandie." L'Anjou, la Touraine et le .Poitou fureut aussi aisément réı:nis au domaine royal. C'étaient les plus brillantes conquêtes qu'un roi de France eat encore faites.-V. Duruy, Histoire de France.

Explain the mood of ellt in the last sentence of the above passage.
IV. Write in French a short account of about fifty or seventy-five words of the first French book which you read.

# SECOND YEAR FRENCH 

Part I

Oral Examination

Part II

## 1. Translate:

Pour nous Français, Napoléon a des titres que nous ne devons ni méconnaltre ni oublier, à quelque parti que notre naissance, nos convictions ou nos intérêts nous aient attachés. Sans doute, en organisant notre état social par le Code civil, notre administration par ses règlements, il ne nous donna pas la forme politique sous laquelle notre société devait se reposer définitivement, et vivre paisible, prospère et libre, il ne nous donna pas la liberté que ses héritiers nous doivent encore; mais au lendemain des agitations de la Révolution française, il ne pouvait nous procurer que l'ordre, et il faut lui savoir gré de nous avoir donné avec l'ordre notre état civil et notre organisation administrative. Malheureusement pour lui et pour nous, il a perdu notre grandeur, mais il nous a laissé la gloire qui est la grandeur morale et ramène avec le lemps la grandeur matérielle. Il était par son génie fait pour la France, comme la France était faite pour lui. Ni lui sans l'armée française, ni l'armée française sans lui, n'auraient accompli ce qu'ils ont accompli ensemble. Auteur de nos revers, mais compagnon de nos exploits nous devons le juger sévèrement mais en lui conservant les sentiments qu'une armée doit au général qui l'a conduite longtemps à la victoire. Etudions ses hauts faits, qui sont les nôtres, apprenons à son école, si nous sommes militaires, l'art de conduire des soldats; si nous sommes hommes d'Etat, l'art d'administrer les empires ; instruisons nous surtout par ses fautes, apprenons en évitant ses exemples à aimer la grandeur modérée, celle qui est possible, celle qui est durable, parce qu'elle n'est pas insupportable à autrui ; apprenons en un mot la modération auprès de cet homme, le plus immodéré des hommes.
-A. Thiers. Histoire du Consulat et de l' Empire.

Give the principal parts, including the first person singular of the preseut subjunctive and the first person singular of the future, of the verbs underscored.

## 2. Translate :

1. My small brother was just telling me what he had done to-day down tọn. 2. While all this was very interesting for her and her friend, it was not so for us. 3. Francis I was born September 12 th, 1494. 4. What is the name of the bridge by which one enters it? 5. Which of these two flowers do you prefer? 6. These large churches to which we are now going are very well known everywhere in the world. 7. I have forgotten the name of the city in the United States where they used to live. 8. We were afraid they had already gone. 9. If he had had his and I had not had mine, it would have been very different. 10. A friend of mine left for France yesterday where he intends to spend several years studying. II. Let us finish now what we began two days ago. 12. We were all sorry you had the toothache. 13. Although meat is very dear at this season of the year, people eat a great deal of it. 14. If it rains to-morrow or is cold we shall not go there. 15. There she is waiting for you on the other side of the street. 16. He will speak to both of them when they return. 17. While he was finishing it they washed their hands.
2. Write in French a short composition of about one hundred words on what you have done this summer.

## THIRD YEAR FRENCH

## Part I

Oral Examination. (one hour).
Part II. (two hours).

1. Translate into English:

Les deux tiers de ma vie sont écoulés; pourquoi tant m'inquiéter sur ce qui m'en reste? La plus brillante fortune ne mérite point ni le tourment que je me donne, ni les.pe-
titesses où je me surprends, ni les humiliations, ni les hontes que j 'essuie. Trente années détruiront ces colosses de puissance qu'on ne voyait bien qu'a force de lever la tête; nous disparaîtrous, moi qui suis si peu de chose, et ceux que je contemplais si avidement et de qui j'espérais toute ma grandeur. Le meilleur de tous les biens, s'il y a des biens, c'est le repos, la retraite et un endroit qui soit son domaine.
-La Bruyzre
2. Translate into English :

On revint sur l'accusation de suicide qu'on lui avait imputée au sujet d'une tentative désespérée d'évasion qu'elle avait faite pendant sa première captivité au château de Beaurevoir. Elle avoua que l'horreur de se sentir captive et désarmée pendant qué son roi et les Français combattaient et versaient leur sang, avait égaré son âme ; qu'elle s'étaitéprécipitée du haut des créneaux dans le fossé, au risque d'y perdre la vie ; que, tombée de si haut et évanouie de sa chute, elle avait été reprise, et qu'en recouvrant ses sens elle avait senti sa faute et demandé pardon à Dieu. Sa jeunesse la sauva d'une mort pour une autre mort. Les forces lui revinrent. Les injures, les outrages, la joie et les chants de ses geôliers lui annonçaient le jugement prochain et la condamnation certaine. Elle gardait avec vigilance ses vêtements d'homme de guerre. L'évêque lui faisait un crime de ce costume qui rappelait ses exploits. Il mettait au prix de ce changement d'habits la permission qu'elle sollicitait de prier du moins avec les fidèles et dassister au sacrifice du dimanche. Elle $y$ consentit, à condition que les vêtements de femme qu'elle revêtirait seraient semblables à ceux des filles pudiques des bourgeoises de Rouen : une robe longue et serree à la taille, dont les plis l'envelopperaient avec décence contre les outrages de ses profanateurs.

> -Lamartine: Jeanne d'Arc

## 3. Translate into French :

a If I had all I need, I should not ask you for any.
b Do not deceive yourself ; if you wish to catch the train, you must get up at six o'clock and leave the house at seven.
c Although he is not a Frenchman, he speaks French better than I do.
d Put his book in its place before he comes back.
e We are going to the country next week, in order that my sister, who is not very strong, may be able to take a horseback ride every morning.
f Which one of these houses is the one where you used to live? The wooden one on the other side of the street.
4. Inflect the following tenses :
a Future Indicative of mourir, savoir, ceder.
b Present Subjunctive of pouvoir, vouloir.
c Present Indicative of acquérir, vêtir, conclure.

## FIRST YEAR SPANISH

I. 1. Give the plural of leccion, frac, vez, facil.
2. Count from seventeen to forty-seven by threes.
3. Give a list of the personal pronouns used as subject.
4. Give a list of all the neuter pronouns.

## II. Conjugate the following :

(a) Present indicative of sentarse, decir, conocer.
(b) Imperfect indicative of andar, ver.
(c) Future indicative of hacer.
.(d) Prețerite indicative of dar, pedir, traducir.
(e) Present subjunctive of quedar, dormir, ir.
(f) Past subjunctive ( 2 forms) of hablar, sentir.
(g) Synopsis (ist sing. of all simple tenses) of tener, poder, ser.
III. Translate :

1. I was eighteen years old last month.
2. We wanted them to give it to you, but they didn't want to do it.
3. Whose book is this? It is mine. Do you like it? I like it better than hers.
4. Where is my hat? Here it is. Bring it to me.
5. He has been studying Spanish for more than two years.
6. We are glad that your mother is well.
7. Can you tell me where the doctor lives? He used to live in that big white house.
8. My sister's friend, who is a teacher, asked me for the picture.

## IV. Translate :

Cuando hizo mi padre el último viaje á las Antillas; Salomón, primo suyo á quien mucho había amado desde la niñez, acababa de perder su esposa. Muy jóvenes habían venido juntos á Sur-América; y en uno de sus viajes se enamoró mi padre de la hija de un español, intrépido capitáns de navío, que después de haber dejado el servicio por algunos años, se vió forzado en 1819 á tomar nuevamente las armas en defensa de los reyes de España, y que murió fusilado en Majagual el veinte de mayo de 1820.

La madre de la joven que mi padre amaba exigió por condición para dársela por esposa que renunciase él á la religion judaica. Mi padre se hizo cristiano á los veinte años de edad. Su primo se aficiond en aquellos días a la religión católica, sin ceder por eso á las instancias para que también se hiciese bautizar, pues sabía que lo que hecho por mi padre, le daba la esposa que deseaba, á él la impediría ser aceptado por la mujer á quien amaba en Jamaica.
V. Dictation.

> -Jorge Isancs.

## SECOND YEAR SPANISH

I. Dictation.

## II. Translate :

Ithaca, Sept. 19, 1916.
Dear John :-
We expect to make a trip to Buenos Aires next summer and we should like very much to have you come with us.

My cousin is living there now and he has invited us to spend the months of July and August at his country house near the city. I have seen a good many pictures of Buenos Aires and it looks like a very interesting place. Besides it is possible that I shall go there after I finish my studies. I do not know whether your plans are already made, but if you have nothing, else to do, I am sure that you would have a good time if you came with us. The steamer leaves New York June 15th, and we shall be back before the University opens in the fall. Let me know if we shall have the pleasure of your company. Give my kindest regards to your father and mother.

> Your friend,

José.

## II. Tradüzcase :

Francisco. Con permiso de las señoras.
Marquesa. ¿Qué ocurre, don Francisquito?
Fran. Natividad y Martín esperan abajo ; dicen que la señora Marquesa les ba mandado venir á esta hora.

Marg. Sí, sí ; para entregarles todos sus papeles. Que suban, que suban en seguida. Dígales usted que están aquí también doña Esperanza y doña Asunción.

Fran. Ya lo saben, señora Marquesa. (Vase por la segunda derecha.)

Teresa. ¿Casan ustedes á alguien ?
Esperanza. Sí, á dos pobres muchachos del pueblo, dos huérfanos protegidos nuestros, digo, ella no es del pueblo, su historia es cosa de novelá.

Ter. ¿Sí? Cuenten ustedes.
MARQ. Después; que ya están ahí.
Dichos, Natividad y Martín por la segunda derecha
Marg. Adelante, adelante. Todos son de casa; mi sobrina, la Marquesa de Santo Toribio.

Nat. ¿La señorita Teresa? Estuvo aquí hace años, era una niña; vino un día á visitar el Asilo con la señora Marquesa y con otra señora.

Ter. Mi madre.

Marg. ¡Qué memoria! Porque entonces tú eres una chiquilla.

Nat. Yo me acuerdo de todo.
Ter. Yọ también recuerdo ahora. Sí, entonces oí la historia ; por cierto que me impresionó mucho ; pero después había olvidado hasta ahora; sí, ya recuerdo. Es la niña que salvaron unos marinos del pueblo de un barco naufragado.

Nat. Sí, señora; yo soy.
Esp. No pudieron salvar más que á esta niña y á una pobre mujer abrazada a su hijo ; la mujer murió en seguida, el chico se salvó también. Fué en la tarde de un día de nochebuena ; por eso cuando confirmamos á los dos niños, en recuerdo les cambiamos el nombre y los llamamos Natividad y Jesús.
-Jacinto Benavente.
IV. Conjugate the following :
(a) preterite indicative of reir.
(b) present subjunctive of perecer, oler.
(c) future indicative of decir.
(d) synopsis ( ist sing. of all simple tenses) of construir, convenir, asir.

## THIRD YEAR SPANISH

I. Escríbase en español una carta, diciendo dónde usted ha estudiado el español y sus motivos para elegir el estudio de este idioma.
II. Dése un breve resumen de alguna novela ó comedia que usted ha leído el año pasado.
III. Traduzcanse las frases que siguen :

1. a. I shouldn't want you to know what she said.
b. We couldn't help laughing at them.
c. I wish I could see him now !
d. That has nothing to do with the matter.
e. The food is good here.
2. a. ¡Que no se le dé cuerda!
b. Salió sin decir esta boca es mía.
c. Está durmiendo á pierna suelta.
d. Usted lo ha echado á perder todo.
e. No podemos contar con que venga.

## IV. Translate :

La americanización de Europa va en una rápida progresión, aunque á ella se opongan unos cuantos espíritus defensores $y$ previsores, cuyo principal representante $y$ director es el emperador de Alemania. M. Stead tiene una frase muy feliz á su respecto : es Canuto, dice, enfrente del mar. La ola no deja de avanzar poco á poco, á pesar de todas las protestas y todos los esfuerzos. Y el viaje reciente del príncipe Enrique ha podido convencer al magnate viajero de la verdadera fuerza yanqui en su centro y origen, y el kaiser, una vez más, habrá sido bien informado. A esta oposición del kaiser obedecen las nuevas disposiciones $y$ las nuevas tendencias del encauce de la emigración de que he hablado en una de mis correspondencias anteriores. Pero oigamos: " No hay ciudades más americanizadas en Europa que Hamburgo y Berlín. Son americanas en la rapidez de su progreso, americanas en su nerviosa energía, americanas en su pronta apropiación de las facilidades para el rápido transporte. El americano se encuentra mucho más en su casa, á pesar de la diferencia de idioma, en la concentrada y febril energía de la vida de Hamburgo y de Berlín, que en las más estacionarias y conservadoras ciudades de Liverpool y Londres. El manufacturero alemán, el armador alemán, el ingeniero alemán, están prontos á emplear las más recientes máquinas americanas. La máquina de escribir americana impera tanto en Alemania como en la Gran Bretaña; y, lo que es mucho más importante, el estanciero americano continúa proveyendo de pan y tocino, en cantidades cada vez mayores, la mesa alemana."

Hay además la transfusión de ideas políticas, que ha preocupado mucho al emperador con justo motivo.

Give a synopsis (ist sing. of all simple: tenses) of the italicized verbs.
V. Pronunciation.

## ANCIENT HISTORY

## Preparation (Answer all.)

1. Where have you studied this subject?
2. How long have you studied it?
3. What text-book or text-books did you use ?
4. What other books about any portion of this period have you read?

If you are trying for only a half unit of credit, answer any five questions in Greek History or any five questions in Roman History.
I. Oriental History. (Answer 1 or 2.)
' 1. What do you know about Babylon. Nineveh, Thebes, Tyre, and Sardis?
2. Why did the Egyptians build pyramids? Where and why did the Phoenicians found colonies? What do you know about Cyrus?
II. Greek History. (Answer two questions.)

1. What do you know about the Iliad and the Odyssey ?
2. How do you account for the colonial expansion of Greece ? In what portion of the Mediterranean world were Greek colonies established ? Name three important colonies, locate them, and name the mother city of each of them.
3. Contrast Athens and Sparta with each other, showing how they differed in political institutions and ideas, social life, education, and achievements.
III. Greek History. (Answer two questions.)
4. What do you know about Delphi and Olympia ?
5. What do you know about Herodotus, Pericles, Xenophon, Praxiteles, and Demosthenes?
6. What do you know about the education of Alexander the Great? What do you think of him as a man, a soldier, and a statesman?
7. Describe a Greek temple. Describe a Greek theatre. Describe a Greek battleship.

## IV. Roman History. (Answer two questions.)

1. How did the Romans get their alphabet? Who were the patricians and who were the plebeians? What do you know about the Twelve Tables?
2. Give an account of the Second Punic War,-its causes, its course, its consequences.
3. Compare Caesar and Cicero as men, as writers, and as statesmen.
V. Roman History. (Answer three questions.)
4. How did Augustus become master of the Roman world? What use did he make of his power ?
5. When, how, and to what extent, did the Roman\$ get control of Britain? What Roman remains would you find there today? When and why did the Romans abandon Britain ?
6. What do you know about the relations between the Roman Empire and the Christian Church in the time of St. Paul, in the time of Trajan, in the time of Diocletian, in the time of Constantine, and in the time of Theodosius I?
7. Describe the Colosseum. Describe the Pantheon. Tell what you can about the eruption of Vesuvius in 79 A. D. and about Marcus Aurelius.

## MEDIEVAL AND MODERN HISTORY

1. Where have you studied this subject ?
2. For how long ?
3. With what text-books?
4. What else have you read on the subject ?

## I.

## (Answer one question only.)

1. What brought about the break-up of the empire of Charles the Great (Charlemagne)? What lesser states have since occupied its territories? Which have lain wholly within its ancient borders? Which have extended beyond them, and how far?
2. Narrate the fortunes, from the days of Charles the Great (Charlemagne) to ours of the lands now known as Alsace-Lorraine (Elzass-Lothringen).
3. Tell the story of the building of Spain, from the days of Charlemagne (Charles the Great) to those of Charles the Fifth.

## II.

## (Answer one question only.)

1. In what great enterprises of the Middle Ages did the knighthood of Europe put itself at the service of religion? What did it accomplish for the maintenance or the spread of the faith ?
2. How in the later Middle Ages was Christendom's knowledge of the world broadened, and what inventions aided its explorations or helped diffuse its information ?
3. Name three leaders of the Renaissance in as many different spheres of activity. What was the home and the period of each, and what his chief contributions to the great movement of which he was a part ?

## III.

(The first of these questions belongs, like those preceding, to Medieval History; the second, like those following, to Modern. If you are a candidate for credit in both subjects, answer both questions, if in but one, answer but one.)

1. With what land and what city do you especially associate Abélard ?-Rienzi ?-Peter Waldo ?-Savonarola ?Gutenberg ?-Chaucer ?-John Hus (or Huss) ?-Godfrey of Bouillon?-Jeanne d'Arc?-Marco Polo? Of whoin or what in the Middle Ages are you reminded by Avignon?Bruges ?-Canossa ? -Constance ?-Palermo?
2. Where and what is Manchuria?-Samoa ?-Archangel ?-the Vosges?-Galicia ?-Liége ?-Gallipoli ?-the Marne ?-Armenia ?-Montenegro ?
IV.

Discuss briefly any five of the following topics: (1) The Peace of Augsburg, (2) the 18th Brumaire, (3) the Boer War, (4) the Holy Alliance, (5) the Fall of the Bastille, (6) the South Sea Bubble, (7) the Congress of Berlin, (8) the career of Bolivar, (9) the Austro-Hungarian Monarchy, (10) the French in Africa.

> V.

## (Answer one question only.)

1. Name the great inventions which during the 19th century changed the habits of the civilized world, pointing out briefly what seem to you their most significant results.
2. Narrate the immediate antecedents of the present European war, and briefly describe the successive stages of its progress.

## AMERICAN HISTORY AND CIVICS

Part One--Answer two questions only:

1. To what reasons, other than the hope of escaping religious persecution, do you attribute the coming of persons from Great Britain to settle in North America before 1688 ?
2. Why did the English seize New Netherland," and why did not the Dutch defend themselves?
3. Write a brief biographical note-approximate dates of birth and death, education and opportunities, public offices and services, character and merits-upon some one of these persons: John Winthrop, Peter Stuyvesant, Sir William Berkeley, Jacob Leisler, Sir William Johnson.
4. What were the causes arising in America for the Inter-colonial Wars, what the causes arising in Europe?

Part Two-Answer two questions only:
5. Compare the position of the United States as a neutral nation in 1803-1810 and in 1914-16 in respect of the influence of European war upon their political and commercial interests and the measures pursued by their government to protect those interests.
6. By what steps was the territory of the United States expanded west of the Mississippi River? When? At. what cost of money ? Of war ?
7. Name four foreign ministers of the United States, telling when, or under what president, and in what country each served. Give an outline of the most important services of two of them.
8. How did the Hayne-Webster debate on state rights come to take place while the resolution before the Senate was one respecting the survey and sale of public lands situated in the territories ?

## Part Three-Answer one question only:

9. Name the candidates and state the leading political issues in the presidential campaign of 1888 . Give the reasons for the outcome of the election.
10. Where, when, why and how has the territory of the United States been extended beyond the continent of North America?

Part Four-Answer one question only:
11. Outline the experience of the United States with an income tax, showing when and why such a tax was imposed, its constitutionality and its significance as a means of securing public revenue.
12. Explain the origin of the Interstate Commerce Clause in the Constitution, and tell what action Congress has taken under it.

## Part Five-Answer both questions:

13. When, in what school, and for how long have you studied American History and Civics? From what textbook? What other books or sections of books have you read upon any part of the subject? Are you an applicant for a full unit, or a half unit, of entrance credit in it ?
14. Select some one of the questions that you have answered out of the first twelve on this paper and tell as specifically as you can in what books you would look for further trustworthy information on that question, or just how, in a library, you would set at work to procure, by your own unaided efforts, the books that could afford you such information. Tell this in such a way that any intelligent person, upon reading your answer, could follow your directions and identify the books.

## ENGLISH HISTORY

For credit of one unit answer two questions in each group. For credit of one-half unit answer two questions in each of the first two groups or in each of the last two groups.

Group I.

1. Trace the history of England from the beginning of the reign of Ethelred, the Ill-Counseled, (978) to the end of the reign of Edward the Confessor (1066).
2. Describe the organization of the mediæval church in England at any time after the Norman conquest. Select any one of the quarrels between an English king and an archbishop of Canterbury, which took place between 1066 and 1485, and explain its causes, course and significance.
3. Tell what you can about five of the following :
a. curia regis
e. assize of arms.
b. feudal incidents
f. villein
c. itinerant justices
g. ordeal
d. Domesday book
h. scutage.

## Group II.

1. Give an account of the reigns of Henry IV and Henry V.
2. Explain how commerce and industry were organized and conducted in England in the middle ages.
3. Explain the causes of the hundred years' war and trace the course of the war to 1360 .

## Group III.

1. On what grounds did Mary Stuart claim the throne of England ? How did her claim endanger the position of Queen Elizabeth? Trace the relations between Mary Stuart and Elizabeth.
2. Trace the relations between king and parliament during the reigns of James $I$ and Charles $I$.
3. Give an account of English activities on the sea during the period of the Tudors.

Gxour IV.

1. Give an account of the colonial policy of England previous to the outbreak of the seven years' war.
2. Describe four important social and economic reforms which have taken place in England since 1815.
3. What were the terms of the union between England and Scotland and of the union between England and Ireland ? Explain how these unions were brought about.

## ELEMENTARY ALGEBRA

1. (a) Simplify :

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

(b) Express the quotient

$$
\frac{\sqrt{a^{8} b^{6}}}{\sqrt[3]{a^{6}+a^{3} b^{8}}}
$$

by means of a single radical, and in its simplest form.
2. (a) By factoring, solve the equation

$$
x^{3}+x 2 x^{2}-x-2=0
$$

(b) Find the least common multiple of

$$
x^{2}+x, x^{2}-x, x^{2}-1 .
$$

3. Solve for $x, y$, and $z$ the simultaneous equations:

$$
\begin{aligned}
& 2 x-3 y-2 z=-1 \\
& 3 x+z=6 \\
& x+y+z=3
\end{aligned}
$$

and check your results.
4. A mine which is to be emptied of water has two pumps which together can discharge 1250 gallons per hour. The larger pump can do the work alone in 5 hours, but with the help of the smaller pump only four hours are needed. How many gallons per hour does each pump discharge ?
5. Is it possible to find three consecutive integers whose sum equals the product of the first and last ? Give reasons for your answer.
6. Given the pairs of simultaneous equations :

$$
\text { (a) }\left\{\begin{array}{l}
3 x-2 y=3 \\
x^{2}+4 y^{2}=13
\end{array}\right\} ; \quad \text { (b) }\left\{\begin{array}{l}
\frac{1}{x}+\frac{1}{y}=7 \\
\frac{1}{x^{2}}+\frac{1}{y^{2}}=29
\end{array}\right\} \text {; }
$$

find the values of $x$ and $y$ in each case.
7. By means of the binomial theorem, write the first 4 terms in the expansion of $(2 x+3 y)^{15}$.

## INTERMEDIATE ALGEBRA

1. Simplify :

$$
x^{-3}\left[x\left(x^{2}-a^{2}\right)^{-k}-\frac{x^{-1}}{\sqrt{\left(x^{2}-a^{2}\right)^{-1}}}\right]
$$

2. Solve the following equations, and check your work :
(i) $\frac{2 x^{2}}{x^{3}-1}+\frac{x}{x-1}=\frac{4+3}{x+1}$;
(ii) $\left\{\begin{array}{l}a x+b y=c \\ a^{\prime} x+b^{\prime} y=c^{\prime}\end{array}\right\}$

Has (ii) a finite and unique solution for all values of $a, b$, $c, a^{\prime}, b^{\prime}$, and $c^{\prime}$ ? Explain.
3. Find an expression of the form $a x^{2}+b x+c$ (i.e., and integral quadratic expression in $x$ ) whose value is 6 when $x=2,3$ when $x=1$, and 10 when $x=4$.
4. a. Define a geometric series, and derive the formula for the sum of its first $\boldsymbol{n}$ terms.
b. By a method similar to that employed in (a), find the sum of the first $n$ terms of the series: $1,2 r, 3 r^{2}, 4 r^{2}, 5 r^{\circ}$, .
5. Find the maximum value of the expression $3+5 x-x^{2}$ for real values of $\boldsymbol{x}$. Also sketch the graph of this function.

6: (i) If $a: b=c: d$ and $e: f=g: h$, prove that

$$
\frac{a}{e}: \frac{b}{f}=\frac{c}{g}: \frac{d}{h} .
$$

(ii) Find a number which, when added to the numbers 7, 9, 11, and 21 will make the four sums proportional.
7. Determine $k$ so that the equations

$$
x^{2}+2 x y-2 x+5=0, x 2-y+k=0
$$

shall have only one pair of simultaneous solutions. What are these solutions?

## ADVANCED ALGEBRA

1. By Horner's method find, correct to two places of decimals, the negative irrational root of the equation

$$
4 x^{3}-x^{2}-12 x+3=0
$$

2. For what values of $x$ is the polynomial

$$
2 x^{8}-3 x^{2}+2 x-3
$$

positive?
3. Derive the formula for the sum of the first $n$ terms of a geometric progression.
4. Solve for $x$ and $y$ the simultaneous equations :

$$
\left\{\begin{array}{l}
x+2 y=k \\
x y+y^{2}=35
\end{array}\right\}
$$

For what values of $k$ are the solutions real ?
5. How many odd numbers between 1000 and 5000 can be formed with the digits $1,2,3,4,6,8,0$, no digit being repeated ?
6. By determinants find $r$ from the equations :

$$
\left\{\begin{array}{l}
p+q+2 r=1-s \\
-q+3 r+2 s=-1-2 p \\
7 r+3 s+3 p=2-2 q \\
-8 s+5 p-3 q=10+6 r
\end{array}\right\}
$$

## PLANE GEOMETRY

1. Define : a right angle; division of a line segment in extreme and mean ratio ; the bisector of an angle ; a convex polygon; similar polygons.
2. If two triangles have two sides of one equal to two sides of the other, and the included angle of the first greater than the included angle of the second, then the third side of the first is greater than the third side of the second.
3. Construct a square equivalent to the sum of three given squares. Prove the correctness of your construction.
4. Construct a circle touching three given straight lines. Show that in general there are four solutions of this problem, and state the circumstances under which there are fewer.
5. Inscribe a regular pentagon in a given circle.
6. The bisector of an angle of a triangle divides the opposite side into segments that are proportional to the other two sides.

## SOLID GEOMETRY

1. Prove that two trihedral angles are equal if the three face angles of one are equal, respectively, to the three face angles of the other, and if these angles are similarly arranged.
2. If a line is perpendicular to each of two intersecting lines at their point of intersection, it is perpendicular to every line lying in their plane, and passing through this point.
3. Define what is meant by a regular polyhedron; also show that there are not more than five kinds of regular polyhedrons.
4. The volumes of two similar tetrahedrons are to each other as the cubes of any two of their homologous edges.
5. The lateral surface of a frustum of a cone is $1 / 4$ of the lateral surface of the complete cone. If the radius of the base of the complete cone is 3 ft . and its altitude is 4 ft ., find the volume of the frustum.
6. From a point outside a sphere of radius 6 inches exactly $1 / 4$ of the surface is visible. How far is the point from the center of the sphere?

## PLANE TRIGONOMETRY

I. The radius of a circle is 2 cm . and an arc of this circle has a length of 3.7 cm . Find the number of degrees in the angle at the center of the circle which is subtended by this arc ; and also find the area of the corresponding sector.
2. Prove that $\sec 2 x-\tan 2 x \tan x=1$.
3. Define the trigonometric functions of an angle, using a suitable figure. From these definitions calculate the values of the trigonometric functions of $315^{\circ}$.
4. Solve the equation :

$$
\cos 2 x \sec x+\sec x+1=0,
$$

$x$ being positive and less than $2 \pi$ radians.
5. a. Prove :

$$
\cos A+\cos B=2 \cos \frac{1}{2}(A+B) \cos \frac{1}{2}(A-B)
$$

b. Find : $\log _{8} 8 ; \log _{8} 2 ; \log _{8} 27$.
6. In the triangle $A B C$, given $a=15.79, b=13.82$, $C=31^{\circ} 42^{\prime} 10^{\prime \prime}$; find $A, B$, and $c$.

## PHYSICS

1. Why is it easier to roll a barrel up a long board into a wagon than to lift it vertically? How does the work done against gravity when the barrel is rolled up the board compare in amount with the work required to lift it vertically ? Explain.
2. A gas tank having a capacity of 5 cubic feet is filled with air under the atmospheric pressure of 15 lbs. per square inch. How many additional cubic feet of air must be forced into the tank in order to raise the pressure, temperature remaining constant, to $\mathbf{9 0} \mathbf{l b s}$. per square inch ?
3. It is found that 50,000 foot pounds of work are used by a hoist in lifting 1,600 pounds to a height of 25 ft . What is the efficiency of the machine?

## Group B

Answer one question from this group.
4. Describe a laboratory experiment for finding either the specific heat of a metal or the heat of fusion of some substance. Make clear what use was made of the law of heat exchange and of the heat lost or gained by the calorimeter. Mention two sources of error.
5. Name three methods of heat transfer. Explain how the transfer of heat by each of these methods is reduced in the case of a thermos bottle.

## Group C

Answer two questions from this group.
6. Mention two effects of an electric current which might be used to measure the size of the current. Would there be any difference in the effects named if the current were to flow in the opposite direction? Explain.
7. An electric flat-iron allows 5 amperes to flow through it when connected to an electromotive force of 110 volts. How many watts of electric power will it use? What will be the cost of running this iron 4 hours a week for 6 weeks, if electric energy costs io cents per kilowatt hour?
8. What factors determine the magnitude of the E. M. F. generated by a simple dynamo ? What are the essential parts of a transformer? For what purpose is a transformer used ?

## Group D

Answer one question from this group.
9. State three characteristics by which one sound may be distinguished from another. What characteristics of the vibrations correspond to each of these three ?
10. Show by diagram how an image is formed (1) by an ordinary camera lens. (2) by an ordinary hand reading glass. In what ways do the images in the two cases differ ?

## CHEMISTRY

(Entrance credit in chemistry does not carry with it University credit in any course in chemistry in Cornell University. Applicants for University credit in Introductory Inorganic Chemistry, Course I, who have received permission from Mr. Hoy, should take the examination for University credit also being held in this room.)

Answer eight questions only.
(Atomic Weights : $H=1, C=12, O=16, C a=\downarrow 0, Z n=65$.)

1. Define in your own words, and illustrate any ten of the following terms : (a) Acid, (b) Salt, (c) Combustion, (d) Electrolyte, (e) Hydrocarbon, (f) Saturated Solution, (g) Melting Point, (h) Fractional Distillation, (i) Deliquescence, (j) Polymer, (k) Filtrate, (e) Reduction.

- 2. Write empirical and structural formulas for any five of the following substances : water, ammonia, nitric acid, ammonium sulphate, potassium chlorate, methane, aluminum sulphate.

Name any five of the substances represented by the following formulas : $\mathrm{NH}_{4} \mathrm{Cl}, \mathrm{Na}_{2} \mathrm{HPO}_{4}, \mathrm{Ca}\left(\mathrm{HCO}_{3}\right)_{2}, \mathrm{NaClO}$, $\mathrm{KClO}_{4}, \mathrm{SbCl}_{3}, \mathrm{AsH}_{3}$.
3. (a) What chemical reactions take place during the combustion of anthracite coal in an ordinary stove or furnace? Write the equations expressing these reactions.
(b) In what forms does carbon occur in nature?
(c) From what sources is carbon dioxide supplied to the atmosphere ?
4. How would you proceed to purify water in the laboratory (a) from solid material held in suspension, (b) from
non-volatile dissolved solids, (c) from dissolved liquids, either more or less volatile than water, (d) from dissolved gases?

Describe briefly a process for effecting the purification of water on a large scale for municipal use.
5. Describe briefly methods for the commercial preparation of any five of the following products: (a) coal gas, (b) phosphorus, (c) bleaching powder, (d) calcium carbide, (e) carborundum, (f) sulphuric acid, (g) sodium carbonate.
6. What volume of oxygen, measured at 750 mm . pressure and $18^{\circ} \mathrm{C}$., would exactly suffice for the complete combustion of (a) 10 liters of carbon monoxide, (b) 5 cubic feet of methane, (c) 25 cc . of acetylene, all measured under standard conditions?
7. State briefly (a) the Periodic Law, (b) the Law of Definite Proportions, (c) The Law of Multiple Proportions, (d) Dalton's Atomic Theory.
8. What volume of acetylene gas, measured under standard conditions, may theoretically be obtained by treatment of $\mathbf{6 4}$ grams of pure calcium carbide with water?

What weight of metallic zinc would be required for the preparation of 44.8 liters of hydrogen measured under standard conditions?
9. Describe a laboratory method for the preparation of chlorine gas. Give equation. What are the properties of chlorine? Explain as fully as possible the chemistry involved in the use of chlorine as a bleaching agent.

## BOTANY

For $1 / 2$ unit credit answer questions 6, 7, 9, 10, 41 . For 1 unit answer any 10 questions.

1. Discuss protoplasm as the basis of plant activity. Make a labeled diagram of an active cell.
2. How do the nutritive processes of plants with chlorophyll differ from those without chlorophyll?
3. Give a brief account of the life of a plant from seed to seed. Use diagrams freely to illustrate the account.
4. Discuss briefly the advantages of seed production in plant life.
5. Give the chief divisions of the vegetable kingdom in a classification showing natural relationship. Give one example of each division.
6. What is meant by alternation of generations? I1lustrate, using a fern or flowering plant as illustrations?
7. Name and describe briefly two harmful and two beneficial fungi.
8. Describe briefly two ways in which trees and shrubs adapt themselves to winter conditions.
9. Describe three experiments in plant physiology. Sketch and label the apparatus used in two of them.
io. Give the characteristics of flowers pollinated by insects, and compare with them the characteristics of flowers pollinated by wind. Illustrate.
10. State what is meant by the words: classification, nomenclature, and identification as used in systematic botany.
11. Name the fundamental plant parts represented by the edible portion of a cabbage, a radish, a sweet potato, a common potato, a strawberry. Of what use to the plant are these parts ?

## ZOOLOGY

For fulb unit answer any eight questions.
For one-half unit answer any five.

1. Write a discussion of the adaptation of structure to habit as exhibited by the appendages of the crayfish.
2. Name the phylum or branch of the animal kingdom to which each of the following belongs: frog, crayfish, bird, cat, bat, paramecium, hydra, grasshopper, earth worm, clam, salmon, and turtle.
3. Make and label a diagram of some protozoan which you have studied with the microscope.
4. Name twelve birds which you have studied in the field and state the peculiar characteristics of color by means of which you recognise them.
5. Explain the method of locomotion of a fish, tadpole, frog, bat, bird, paramecium, and earthworm.
6. Compare the mode of respiration of a fish and frog.
7. Define : fauna, nucleus, carapace, flagellum, larva, metamorphosis, and cilia.
8. Compare the development and life-cycle of a butterfly and grasshopper.
9. Explain briefly two ways in which disease may be spread by insects.
10. Make a simple diagram of the circulation of the blood in man or any one of the mammals showing the currents by means of arrows.

## BIOLOGY

State briefly what biological subjects you have studied, with what proportion of recitation and laboratory work and for what periods. Any laboratory books or other work done in such courses may be submitted as supplemental to the answers to be written to the following questions.

Answer any ten questions.

1. Describe fully the path of water through a plant, from soil to air. Make a labeled diagram to show the position of each part mentioned.
2. Make a drawing of the external appearance of some woody stem, showing position of leaf scars, buds, and scars marking annual growth. Describe the structure of the bark. State the function of lenticels.
3. Mention two functions of the lymph in man and state how these functions are performed. State the effect of vigorous exercise on the blood.
4. Make a diagram of the heart of man, showing the relations of other internal organs to it, and state the function of each organ.
5. Make a labeled drawing of some insect showing external features. How do you distinguish insects from spiders?
6. Make a labeled drawing of the internal structure of a clam.
7. Compare the respiratory systems of crustaceans, insects and mammals.
8. Describe fully the structure of some simple flower of the pulse family. How is it adapted to insect visitation ?
9. Give an account with simple diagrams of the life history of a fern.
10. What is starch : its composition, function in the living plant, where formed, and under what conditions?
i1. Mention two kinds of bacteria beneficial to man, and state in what way each is beneficial. Mention three that are harmful.
11. Describe in some detail the functions of the liver of man.
12. Describe fully the process of digestion and of absorption in man of the white part of an egg.
13. State how diseases may be spread by (a) mosquitoes and (b) house flies. Name in each case two diseases thus spread.
14. Give the recognition characters of the males of five of the following birds. English sparrow, song sparrow, vesper sparrow, chipping sparrow, yellow warbler, American goldfinch, bobolink, cow bird, bronzed grackle, oriole.

## PHYSICAL GEOGRAPHY

*For full unit of credit answer all questions.
For half unit of credit answer questions $1,2,4,5,6,8,11$.
*If you desire a half unit of credit in case your paper is not worth a full unit indicate that on outside of your examination book.

> 1. Define: Drumlin, Consequent Stream, Spring Tide, Monadnock, Cyclone.
2. Why does the Labrador Current flow close to the east coast of North America as far south as Cape Cod while the Gulf Stream (or Gulf Stream Drift) flows northeastward across the Atlantic to Europe ?
3. Account for the characteristics of the Grand Canyon of the Colorado R.: Its wide upper gorge and narrow, inner, lower one; why it is so deep, and why there are no large falls in its course.
4. By what processes are mountain peaks developed ? Account for volcanic cones with very steep slopes and for volcanic cones with quite gentle slopes and give an example of each kind.
5. Explain with a diagram how a contour map shows both the elevation and form of the relief features of a region. In what respects is a Mercator map of the world inaccurate ?
6. Distinguish between minerals and rocks. Give five examples of common varieties of each, and in the case of the minerals indicate their relative hardness in a scale of 10.
7. What are the features that make the Great Basin a distinct physiographic province? Name four other notable physiographic provinces of the United States.
8. A weather map of the United States shows a " low" over northern Ohio and a broad area of high pressure over the western United States from Montana southward. What parts of what states will probably experience rainfall on the following day and how will the temperature change in those areas after the rain?
9. How was the basin of Lake Michigan probably formed? Under what conditions do sink holes develop? Where are fiords found and how are they formed ?
10. What are the characteristics of the coast of Maine ? To what change are they due? Where else are similar coasts found ? What is their importance to civilized man ?
11. Note: No credit will be given for papers in which full answers to the queries that follow are lacking.
a Where (place, school, teacher) did you study Physical Geography ?
b When (year) how long, number of weeks, and recitations per week?
c On how many field trips did you go ?
What features were studied on one of them and where?
Did you do laboratory work and keep a notebook ?
d What text was used ?
What laboratory manual?

## BOOKKEEPING

For $1 / 2$ unit answer question 12 and one of the following 2, 3, or 4.

For 1 unit answer question Ib and 2, 3, and 4.

1. A. G. Weldon is the sole proprietor of a general store. On January 1, 1916, his ledger showed the following balances: Cash \$1,000; Merchandise \$7,500; Bills Receivable $\$ 1,900$; Furniture and Fixtures $\$ 2,500$; A. G. Weldon, Proprietor \$12,900.

The transactions for the month of January were as follows :

Jan. 3. Sold merchavdise to Samuel Brooks \$3,000; received his note for $\$ 2,000$ due in sixty days, the balance in cash.

Jan. 5. Bought merchandise from James Linden \$1,500; paid him $\$ 500$ on account.

Jan. 7. Frank Leslie paid his note (Bill Receivable) for $\$ 700$ due today with one month's interest at $6 \%$ per annum.

Jan. 10. Paid January's rent in cash $\$ 50$.
Jan. 11. Withdrew $\$ 25$ in cash for personal use.
Jan. 13. Discounted James Wilson's note for $\$ 500.00$ (Bills Receivable) at the bank, time 2 months, rate $6 \%$.

Jan. 15. Sold merchandise for cash $\$ 280$.
Paid two weeks' wages $\$ 125$.
Jan. 17. Sold Keller \& Co. merchandise on account $\$ 650$. Paid James Linden balance due him less a discount for $2 \%$.

Jan. 19. Received from L. D. Houston $\$ 500$ in payment of his note due today.

Jan. 20. Paid advertising bill in cash $\$ 70$.
Jan. 21. Sold Roos \& Son merchandise on account $\$ 450$.
Jan. 22. Received from Keller \& Co. cash in settlement of their bill less $2 \%$ discount.

Jan. 24. Discounted own note for $\$ 500$ time 3 months rate $6 \%$.

Jan. 25. Bought from Seymour \& Co. merchandise \$750, paid them $\$ 485$ on account and received credit for $\$ 15$ discount.

Jan. 29. Paid wages for two weeks $\$ 125$.
Jan. 31. Received January bills for light and power $\$ 4.50$; telephone $\$ 2.50$; office supplies $\$ 4.00$.

Iuventory of merchandise $\$ 6,000.00$.
a. Prepare a ledger showing balances on January $1,1916$. Enter the January transactions in at least two books of
original entry, post to the ledger, take a trial balance, and close the ledger.
b. Prepare a ledger showing balances of January $1,1916$. Enter the January transactions in a Journal, Cashbook (with at least one special column on each side) Purchase Book, Sales Book, post to the ledgers, take a trial balance and close the books, making journal entries for the introduction of new items and for transferring balances from one account to another.
2. Define and explain : double entry bookkeeping; current liabilities ; fixed assets ; debit ; credit ; journalizing.
3. Answer both a and b.
a. Explain and illustrate the use of special columns in the books of original entry. How are cash sales entered ?
b. What is a controlling account ? How should receipts from customers in payment of invoices less discounts be entered in the cashbook? What postings should be made ?
4. Explain and illustrate the method of proving the correctness of the cash balances as shown by the cashbook, the checkbook and the bank pass book or bank statement.

## AGRICULTURE

(Answer questions 1-5 inclusive for one-half unit, and all questions for one unit.)

1. Name the five elements most important for plant growth and tell where crops ordinarily obtain them.
2. About how long should it take a man and team with a walking plow to plow 12 acres for oats ?

How many pigs under favorable circumstances will a good sow raise in a year?

Name any region with which you are familiar and give the usual yields per acre of five crops commonly grown there. Also give the approximate time of planting and approximate time of harvesting each of these crops. Explain the method of seeding meadows used in that region.

How many pounds of milk per year will the cows of a good dairy herd average?
3. What are the chief differences in conformation between dairy and beef types of cattle? Name several breeds of each type.
4. Give a crop rotation used in any section with which you are familiar. What are some of the advantages of crop rotation over single cropping?
5. What is the usual practice in propagating potatoes? How are new varieties of potatoes secured ?
6. Tell what silage is, how it is made, and what it is used for.
7. Discuss humus and its functions in the soil.
8. Describe an insect or disease pest serious in its effects on any fruit : another pest affecting some other crop. State unusual methods of control.
9. Describe the essentials of the Babcock method of determining the butter fat in milk. How many pounds of butter fat are contained in 128 pounds of milk testing $3.8 \%$ butter fat?
10. Explain the importance of leguminous crops in soil improvement.

## DRAWING

Two examinations are given, one in freehand drawing and one in mechanical drawing. Applicants may take either, or by special arrangement may take both. The examination will be given and judged on the assumption that those taking it have had approximately 150 actual hours of instruction and practice for each $1 / 2$ credit point desired. One ( 1 ) point is the maximum credit allowed in the subject. Candidates taking the examination must present samples of their work, and a teacher's statement showing time and proficiency.

## FREEHAND DRAWING

For this examination the applicant is required to make a pencil sketch of an object or group of objects. The objects used may be geometrical blocks with straight and curved lines and curved surfaces, simple pieces of pottery, furuiture, or models with simple lines and surfaces. The purpose of the examination is to test the ability of the applicant to draw accurately and sympathetically just what he sees. Shading may or may not be required.

## MECHANICAL DRAWING

Questions may call for instrumental drawing of geometric constructions, orthographic and isometric projection, oblique section and intersection of solids, surface developments, etc., and working drawings of machine details, as bolts, nuts, pulleys, gears, various simple castings, etc. Data for the problems in any given examination will be furnished in the form of sketches or photographs with dimensions marked or stated.

## MANUAL TRAINING

Examinations will be offered in woodworking, forging, foundry work, and machine work. To satisfy the entrance requirement the applicant must have performed not less than 300 hours of actual work in the subjects in which the examination is taken. Candidates must present a teacher's statement of the time actually spent in the work and of the proficiency attained therein.

# SCHOLARSHIP EXAMINATION PAPERS 

## ENGLISH

[Answer questions $\mathrm{I}, \mathbf{2 , 3}$, and two others.]

1. Write a composition, four or five pages in length, on one of the following topics: The Age of Johnson. The Boy Scouts. My Interest in Geography (or Geology, or Zoology). Franklin a Typical American. A Memorable Snow Storm. How an Ainendment is Made to the Federal, Constitution. The Disciplinary Value of Mathematics. The Character of Queen Esther (or of Ruth, or of Penelope).
2. Name some contemporaries, literary or political, of each of the following : Addison, Emerson, Macaulay, Johnson, Milton, Scott, Burns, Tennyson.
3. "Straight mine eye hath caught new pleasures, Whilst the landskip round it measures : Russet lawns, and fallows gray, Where the nibbling flocks do stray ; Mountains, on whose barren breast The labouring clouds do often rest ; Meadows trim, with daisies pied, Shallow brooks, and rivers wide."

What part of speech is straight, whose, rest, trim, wide? What is the syntax of landskip, lawns, mountains, clouds, rivers? Point out a subordinate clause and explain its grammatical relation. Explain russet, fallows, pied. Scan the first two lines. From what poem is the passage taken ?
4. Show how the outcome of some tragedy of Shakespeare is determined by the character of the hero.
5. Explain somewhat fully the statement that " L'Allegro and Il Penseroso are twin masterpieces of Milton's youth."
6. Name some poems of Burns; show by brief comment how these poems illustrate Carlyle's criticism of Burns's poetry.
7. Give an account of the last years of Johnson's life.
8. Choose $a$ or $b$.
a. What part does Excalibur play in The Passing of Arthur?
b. Sketch the character and conduct of Modred.
9. Choose $a$ or $b$ or $c$.
a. Discuss the value to England of winning the affection and loyalty of the colonies.
b. Discuss Washington's remarks on matters likely to disturb the union.
c. Discuss the important changes in America between the year of Bunker Hill and the year of Webster's oration.

## GREEK.

A. TRANSLATION AT SIGHT.

The Greek army of Cyrus while on the return journey tries to get .ienophon to accept the supreme command of the forces.





























## B.

Translate into Greek:
The Greek army of Cyrus on their way homeward suffered much by reason of lack- of-discipline. The captains, recognizing this, wished to make Xenophon, general with-absolutepower, but many thought that the commander should be a Lacedaemonian. Xenophon, however, would have been chosen, had he not made it plain to all the soldiers that the gods would not be pleased. So they chose Chirisophus, while Xenophon, noble man that he was, promised to do whatever they should ask of him.

## C.

## QUESTIONS UPON GRAMMAR.

1. Write out the inflexion of $\boldsymbol{\gamma}$ éфupa, $\beta$ arcleús.
2. Write a synopsis (the first form which occurs in each mood) of cafiornu in the present, ist and 2nd aorists, and the perfect, of the active voice ; of ofoa, in the same tense as that of the form itself, and of cfor likewise.
3. What is the rule for the syntax of the verb in clauses introduced by трiv? By む̈тг? By д̈тшs?

## LATIN

1. Decline in the singular, sanguis; nulla vis; quidam. vir; in the plural, $t u$; corpus; in both singular and plural, levis, leve; minor, minus.
2. Give the principal parts of audeo; fractus; pario; posco; redimo; tollo; ultus; veto; vinco; vivo.
3. State what case construction or constructions are used with dignus; similis; egeo; paenitet; parco.
4. Give a complete synopsis of malo in the third person, singular number.
5. What is the difference in use between the adverbs ne and non? In what ways may a prohibition be expressed in Latin? Purpose? Quality? Price? Agency?
6. Explain fully the difference in meaning and use between the gerund and the gerundive.
7. Translate:

Bellum Gallicum, patres conscripti, C. Caesare imperatore gestum est, antea tantum modo repulsum. Ipse ille C. Marius, cujus divina atque eximia virtus magnis populi Romani luctibus funeribusque subvenit, influentis in Italiam Gallorum maximas copias repressit, non ipse ad eorum urbes sedisque penetravit. Modo ille meorum laborum, periculorum, consiliorum socius, C. Pomptinus, fortissimus vir, ortum repente bellum Allobrogum atque hac scelerata conjuratione excitatum proeliis fregit eosque domuit, qui lacessierant, sed ea victoria contentus republica metu liberata quievit. C. Caesaris longe aliam video fuisse rationem; non enim sibi solum cum eis, quos iam armatos contra populum Romanum videbat, bellandum esse duxit, sed totam Galliam in nostram dicionem esse redigendam.

Account for the construction of all italicized words in this passage.

## 8. Translate :

Hunc Polydorum auri quondam cum pondere magno infelix Priamus furtim mandarat alendum

Threicio regi, cum jam diffideret armis Dardaniae cingique urbem obsidione videret. Ille, ut opes fractae Teucrum et fortuna recessit, res Agamemnonias victriciaque arma secutus fas omne abrumpit, Polydorum obtruncat et auro vi potitur. Quid non mortalia pectora cogis, auri sacra fames! Postquam pavor ossa reliquit, delectos populi ad proceres primumque parentem monstra deum refero et quae sit sententia posco. Omnibus idem animus, scelerata excedere terra, linqui pollutum hospitium et dare classibus Austros.

Account for the construction of the italicized.words in this passage.

Copy the first two lines of this passage and mark the quantity of the vourels. Copy the last two lines and mark the quantity of the syllables.
9. Give the dates of Cicero's birth and death. Name the most important of Virgil's works.

10, Translate into Latin:
(a) I do not know why he urged me not to return home.
(b) You will relieve me of great fear, provided there be a wall between you and me.
(c) The enemy could have destroyed our army, if they had attacked it at once.
(d) The orations of Cicero are worthy to be read by all.
(e) While we remained at Athens, we wrote many letters to our friends at Rome.
(f) Caesar says that good soldiers must obey their commander.

## GERMAN

I.

## Translate.

1. Diefleine $\mathfrak{M e l t}$.
$\mathfrak{A l z}$ in $\mathfrak{J a h r e} 1859$ bie japanifde Şafenftadt $\mathfrak{Y}$ ofohama bem europaiifann Berfehr geoffnet wurbe, langte bort, in einem ber erjten bon Sdanghai fommenben Sauffabrer, ein blondhaariger, Gelläugiger, Gagerer, langer, junger $\mathfrak{J r l a ̈ n d e r ~ a n t . ~ W a ̈ b r e n d b e m ~ d i e ~} \mathfrak{B o o t e}$ bereit gemadyt murben, um die Paffagiere anz Rand zu fegen, ftand er leife pfeifent auf dent Berbect und mufterte aufmerffam bie in einem $\mathfrak{S}_{2} \mathfrak{l b}$ = freis bor ign auछ̨gebreitete fleine Stabt, melde bamalz nod, mit ibren tweit auseinander liegenden, einftötigen, aus weipem $\mathfrak{S}^{2} \mathfrak{I}_{z e}$ зujammengezimmerten Şäujern, mebr einem Fifiderborfe alz bem Emporium bes̃ neugeborenen Şanbelz zwifden Europa und Japan glid.- $\mathfrak{n}$ geringer Entfernung bom $\mathfrak{L a n b u n g s p l a g e ~ e n t b e c ̌ t e ~ b a b ~}$ Uuge bez̧ $\Re$ Reijenben eine $\mathfrak{Z r t}$ Sduppen, über bem bie englijafe Flagge webte. Er merfte fidy bie Stelle genau und ftieg bann, ohne fein bergnüglideş $\mathfrak{P f e i f e n ~ z u ~ u n t e r b r e d e n , ~ g e l a f i e n ~ i n ~ b a s ~} \mathfrak{B o o t}$, in bem bie Mehrabl ber anbern Paffagiere bereitz Plaz genommen hatte. Wenige Minuten \{päter \{prang er leidten Fupezz in Yofohama ans $\mathfrak{U}$ fer, und obne eine Frage an jemand zu ridten, wie ein Mann, ber ganz genau weip, toaß er zu tun hat, bog er bom Şafenplaģe liniza ab und begab fide geraben Weges̉ nadj bem bou ihm bemerften Geebäube, bem englifden Sonjulate.-Ein alter Betwobner bon Yofobama hätte nidt mit größerer Siderbeit auftreten tönnen, alz ber Neuange= lommene ez tat.
2. Rönig 乌araloz அofie.
 $\mathfrak{B l a u}=\mathfrak{j u}$ bas̉ andre; fie waren igm wert. Götterblut in ben beiben flo $\beta^{2}$,
Beibe ftammten bon Dbinz̉ Mop.(Grau= ₹up war mie bie ruhlofe Wolfe, Stürmend ging er bor allem Bolfe, Wenn er ben Mönig trug in bie SdladtSturm feine Mäbne, fein ※uge war શadt. Flau=juß war gleid bem zudenden Bliz̨e, Springend ging er an நeereßె Spike, Feuer fein $\mathfrak{A} t e m, ~ D o n n e r ~ f e i n ~ S ̧ u f, ~$

Branbenbe See war fein wiebernber $\mathfrak{F u f}$ ©botterfraft ignen Dbin lieh, Beffere Mofie \{ah man nie.-
 3aubergabe war ibnen beidjert: Sünftige Dinge, allen berborgen, Dinge ber freube, Dinge ber Sorgen Sünbeten fiu mit menidlidem Munbe, Wenn bie Julzeit tam, in nädtlider ©tunbe.Bludilid, wen Bufall jur Stelle trug, Wenn bie Rauberftunbe, bie buntle, fdlug, Unbeil aber unb Flud und Gram, $\mathfrak{W e r}$ zu belaujden bie Moffe tam.-

## II.

1. Give German words containing the following suffixes (one example of each), together with the correct form of definite article in the case of nouns:-schaft, -nis, -tum, -in, -haft, -lich, -ig, -eln, -ieren.
2. Give the meaning and 3 principal parts together with the 3rd singular present indicative of : schaffen, verschaffen, anschaffen, hoffen, aushalten, unterhalten, vorelsen, verlesen, verlassen, anbieten, verbieten, erbitten, beten, sitzen, versetzen.
3. What is the meaning of the perfect subjunctive in indirect discourse ? the pluperfect subjunctive in a conditional sentence? the future perfect indicative with wohl (Sie werden ihn wohl gesehen haben)? wollen in Er will ihn gesehen haben? sollen in Er soll ihn gesehen haben? dürfen in Man darf es nicht?
4. What word-order is used in sentences or clauses beginning with the following words : aber, also, dann, obgleich, wenn, wann, denn, nun? Give German sentences illustrating such use of each.
5. Give 3 prepositions governing the genitive case and illustrate each by a German sentence.
6. Give a synopsis in the 3 rd person singular, all modes and tenses, active and passive of schlagen.
7. Decline in both singular and plural: ein ungeheuer grosser Fisch, der durch allerlei Anstrengungen erschöpfte Mensch.

## III.

## Translute into German :

We intended to go to Germany two years ago, but changed our plans when the war broke out. I am now studying here at the University, as you know, my sister is studying music in Boston, while father and mother are still in New York. Next summer we are all going to take a trip together out west and "see America first'". Mother has been sick quite a good deal the past year and may decide to stay some time in California; the rest of us will of course come back in the fall, father on account of his business, my sister and I to finish our studies. I like life at the University very well and am preparing myself to be a journalist. I have been studying especially English, History and Modern Languages and have taken an active interest in "The Sun". Last summer in the vacation I did some work for a New York newspaper and earned quite a bit of money. It was well I did, for I found I could make good use of it all.
IV.

Write an essay in German of not less than one hundred words on what you like to read (" Meine Lieblingslektïre.")"

## FRENCH

## (.Ansu'er questions in order.)

1. Translate: La vertu dans une république est une chose très simple : c'est l'amour de la république, c'est un seutiment, et non une suite de connaissances; le dernier homme de l'Etat peut avoir ce sentiment, comme le premier. Quand le peuple a une fois de bonnes maximes, il s'y tient plus longtemps que ce que l'on appelle les honnêtes gens. Il est rare que la corruption commence par lui. Souvent it
a tiré de la médiocrité de ses lumières un attachement plus fort pour ce qui est établi.

L'amour de la patrie condurt à la bonté des mœurs, et la bonté des mœurs mène à l'amour de la patrie. Moins nous pouvons satisfaire nos passions particulières, plus nous nous livrons aux générales. Pourquoi les moines aiment-ils tant leur ordre? c'est justement par l'endroit qui fait qu'il leur est insupportable. Leur règle les prive de toutes les choses sur lesquelles les passions ordinaires s'appuient : reste donc cette passion pour la règle même qui les affige. Plus elle est austère, c'est-d-dire plus elle retranche de leurs penchants, plus elle donne de force à ceux qu'elle leur laisse.
-Montesquieu.
2. Write in French one page of commentary on the application of this passage to our own time and country.
3. Translate: Pierre leva la tête, regarda l'intérieur de la Basilique. C'était une nef étroite, haute, bariolée de couleurs vives, que des baies nombreuses inondaient de lumière. Les bas coftés existaient à peine, se trouvaient réduits à un simple couloir filant entre les faisceaux des piliers et les chapelles latérales; ce qui semblait augmenter encore l'élancement de la nef, cet envolement de la pierre en lignes minces, d'une gracilité enfantine. Une grille toute doree, transparente comme une dentelle, fermait le chœur, où le maitre autel, de marbre blanc, couvert de sculptures, avait une somptuosité de candeur virginale. Mais ce qui étonnait, c'était l'extraordinaire ornementation dont l'amas transformait l'église entière en un étalage débordant de broderies et de joailleries, des bannières, des exvoto innombrables, tout un fleuve de dons, de cadeaux, qui avait coulé et s'était amassé sur les murs, tout un ruissellement d'or, d'argent, de velours, de soie, qui la tapissait du haut en bas. Elle était le sanctuaire sans cesse embrasé de la reconnaissance, elle chantait par ses mille richesses un continuel cantique de foi et de gratitude.-Zola.
4. Write in French at least two pages on some French book you have read.

## 5. Translate:

a. Je ne suis pasà même de le faire.
b. Quoi qu'il eu soit, je ne vous en crois pas.
c. Je n'ai pas réussi, tant s'en faut.
d. Il faut se méfier de ses paroles.
e. Je suis revenu sur ce jugement.
f. Il faut nous entendre avant de nous quitter.
g. Il n'y tient pas.
h. Je ne tiens plus.
i. Il en est de nême de nous autres.
j. C'est une entreprise téméraire que de se proposer d'examiner toute une littérature.
6. Inflect the following tenses :
a. Present Subjunctive of conclure.
b. Imperfect Subjunctive of vêtir.
c. Perfect Subjunctive of se tromper.
d. Pluperfect Subjunctive of $s^{\prime}$ en aller.

7a. Translate:
O noirs événements, vous fuyez dans la nuit !
L'empereur mort tomba sur l'empire détruit.
Napoléon alla s'endormir sous le saule.
Et les peuples alors, de l'un à l'autre pôle, Oubliant le tyran, s'eprirent du héros. Les poètes, marquant au front les rois bourreaux, Consolèrent, pensifs, cette gloire abattue. A la colonne veuve on rendit sa statue. Quand on levait les yeux, on le voyait debout Au-dessus de Paris, serein, dominant tout, Seul, le jour dans l'azur et la nuit dans les astres. Panthéons, on grava son nom sur vos pilastres ! On ne regarda plus qu'un seul côté des temps; On ne se souvint plus que des jours éclatants; Cet homme étrange avait comme enivré l'histoire ; La justice à l'œil froid disparut sous sa gloire.
-Hugo.
b. Write five principal parts of verbs in italics.

## ELEMENTARY AND INTERMEDIATE ALGEBRA, PLANE GEOMETRY

1. Simplify the expression $\frac{x^{2}-1}{x^{2}+x-\frac{x^{2}+4 x+3}{x+\frac{3 x+6}{x+2}}}$.
2. Find the highest common factor of

$$
x^{2}+x^{2}+3 x+10^{0} \text { and } x^{2}+x^{2}-5 x-6
$$

3. A boat can be rowed downstream 4 miles in the same time as it can be rowed upstream 3 miles. A trip 6 miles downstream and back requires $31 / 2$ hours. Find the rate of the boat in still water, and the rate of the current.
4. Solve completely the quadratic equation

$$
a c x^{2}+\left(a^{2}+b c+c^{2}\right) x+a b+a c=a b x+b^{2}+b c .
$$

5. Prove that an angle formed by two secants intersecting outside a circle, or by two tangents, or by a tangent and a secant is measured by one-half the difference of the intercepted arcs.
6. The radii of two circles are 8 inches and 3 inches, and the distance between their centers is 15 inches. Find the lengths of their common tangents.
7. Prove that the areas of two triangles which have an angle of the one equal to an angle of the other are to each other as the products of the sides including the equal angles.
8. Given two points A, B. By means of the compass alone find a point $C$ on the straight line $A B$, such that $A B=B C$. The line $A B$ is not to be drawn.

## SOLID GEOMETRY, TRIGONOMETRY, ADVANCED ALGEBRA

1. If a straight line is perpendicular to each of two intersecting straight lines at their point of intersection it is perpendicular to any line lying in the plane determined by the
intersecting lines, and passing through their point of intersection.
2. The inside diameters of the bases of a flowerpot are 16 inches and iI inches; the slant height is 14 inches. How many cubic inches of earth does it contain when completely filled ?
3. What is the maximum number of spherical balls 1 inch in diameter that can be put in a cubical box, 4 inches long inside? Demonstrate your reply.
4. Find all the values of $x$ that satisfy the equation

$$
\sin 5 x=\sin 2 x
$$

5. Prove the identity

$$
\cos 3 x \sin 2 x-\cos +x \sin x=\cos 2 x \sin x
$$

6. In a plane triangle, given $a=168.32, b=221.46$
$A=33^{\circ} 39^{\prime} 16^{\prime \prime}$. Find the remaining parts.
7. Find, correct to one place of decimals, the coordinates of a point in the second quadrant common to the two curves

$$
x^{2}+y=7, x+y^{2}=11
$$

8. Resolve into linear factors the determinant

$$
\left|\begin{array}{lll}
x & x^{2} & x^{3} \\
y & y^{2} & y^{3} \\
z & z^{2} & z^{3}
\end{array}\right|
$$

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The Annual Register (for the year 1915-16, published January i, 1916), price 50 cents.
Book of Views, price 25 cents.
Directory of Faculty and Students, First Term, 1916-17, price io cents, and the following informational publications, any one of which will be sent gratis and post-free on request. The date of the last edition of each is given after the title.
General Circular of Information for Prospective Students, December 15, 1915.

Announcement of the College of Arts and Sciences, April is, 1916.
Announcement of Sibley College of Mechanical Engineering and the Mechanic Arts, January 15, 1916.
Announcement of the College of Civil Engineering, March 15, 1916.
Announcement of the College of Law, May 15, 1916.
Announcement of the College of Architecture, July 1, 1916.
Announcement of the New York State College of Agriculture, June i, 1916.
Announcement of the Winter Courses in the College of Agriculture, June 15, 1916.
Announcement of the Summer Term in Agriculture, April 1, 1916.
Announcement of the New York State Veterinary College, May i, 1916.
Announcement of the Graduate School, February 1, 1916.
Announcement of the Summer Session, March I, 1916.
Annual Report of the President, September 1, 1916.
Pamphlets on prizes, samples of entrance and scholarship examination papers, special departmental announcements, etc.
Announcement of the Medical College may be procured by writing to the Cornell University Medical College, Ithaca, N. Y.

