

Examination Papers.

Entrance Examinations, 1871-72.

The following are specimens of the papers given to candidates for admission at the Entrance Examinations held at the opening of the Fall Trimester of the present year. The papers in Greek and Latin, and in Plane Geometry—in which subjects candidates for admission into the Courses in Arts and Literature are required to pass an examination—are not included. In Arithmetic and Algebra an oral examination was added to the written one.

GEOGRAPHY.

1. Name the rivers of Spain, of France, of Germany, of Italy, of Russia in Europe.
2. How could one go by water from Archangel to Constantinople. From Lyons to Paris?
3. Bound Germany, Italy, Turkey in Europe.
4. Name the rivers of India, of China, of Siberia.
5. How could one go by water from Cairo in Egypt to Canton? From Malta to Glasgow?
6. Bound Persia, Arabia, Afghanistan.
7. Over what countries would one pass in going in a straight line from Pekin to Madrid?
8. Name three principal cities in China, three in India, three in Asia Minor.
9. Name five principal rivers of Africa.
10. In what part of Africa are its ranges of Mountains? Describe them.
11. What are the productions of Africa which form articles of commerce?
12. Bound Uruguay, Paraguay, Bolivia.
13. Name five large rivers of South America and say in what direction they flow.
14. Name the capitals of each of the countries of South America.
15. How could one go by water from Montevideo to Pittsburgh?

16. Bound Kansas, Arkansas, Dacota.
17. How could one go by water from New York to Chicago?
18. Name five large rivers of British North America.
19. Describe the boundary line between British North America and the United States.
20. What States and countries would one pass in sailing from Milwaukie to San Francisco?

ENGLISH GRAMMAR.

1. Give the Grammatical and Logical parts of the proposition:—
 “Thou art the ruins of the noblest man
 That ever lived in the tide of time.”
2. Parse the pronouns and the nouns in the preceding quotation.
3. What is meant by a noun placed in apposition?
4. Substitute an adverbial phrase or adjunct in the sentence:—They conducted themselves respectfully towards their superiors.
5. When is a noun in the nominative, and when in the possessive case? Give examples.
6. Give directions for the use of the marks of interrogation and exclamation.
7. Give the plurals of the following words:—Self, sheaf, bellows, brother-in-law, deer, basis, piano-forte, formula, spoonfull, Mr., spectrum, focus, larva, alms, erratum.
8. Give directions for the use of the colon and semi-colon.
9. When is a noun or a pronoun put in the objective case?
10.
 “Let not Ambition mock their useful toil,
 Their homely joys and destiny obscure;
 Nor Grandeur hear, with a disdainful smile,
 The short and simple annals of the poor.”
 Parse the verbs in this passage. What figure of speech is illustrated?
11. Correct the following sentences, if they need correction:—
 1. It is to you to whom I am indebted for this favor. 2. No barber, brewer, nor merchant want a partner. 3. Pharaoh and his host pursues after them. 4. My business prevent me attending the last meeting. 5. Money is scarce and times hard. 6. The garments were sown neat. 7. No man so poor who has not something to enjoy. 8. They were all there unless two or three. 9. Such a relation as ought to exist between a principal and accessory. 10. Nobody will ever intrust themselves to that boat again.
12. Analyze the sentence:—It is through inward health that we enjoy all outward things.

13. Write from dictation the following stanza:—
 “ And there was mounting in hot haste; the steed,
 The mustering squadron, and the clattering car,
 Went pouring forward with impetuous speed,
 And swiftly forming in the ranks of war;
 And the deep thunder peal on peal afar;
 And near, the beat of the alarming drum,
 Roused up the soldiers ere the morning star;
 While thronged the citizens, with terror dumb,
 Or whispering with white lips, ‘ The foe! They come,
 they come!’ ”

ARITHMETIC.

1. Write nine quadrillions nineteen thousand nineteen, and nineteen hundredths.
2. Bought 39 A. 2 R. 16 p. of land for \$3.75 per square rod, and sold the same for \$0.25 per square foot. What did I gain by my bargain?
3. Add $\frac{1}{9}$, $2\frac{5}{8}$, $\frac{45}{94171}$ and $\frac{47\frac{6}{9}}{314\frac{3}{8}}$ together.
4. Divide :306144 by 9567.
5. Find the greatest common divisor of 2025, 6075, 8100, 86.
6. Find the least common multiple of 362, 579, 832, and 221.
7. In what time will \$480 at $4\frac{1}{2}$ per cent. amount to \$561.60?
8. Illustrate the difference between true discount and bank discount by an example and show which is the greater.
9. Extract the cube root of 9 to three places of decimals.
10. How much tea at 40 cents, 60 cents, 55 cents, 48 cents, and 63 cents must there be in 200 lbs. of a mixture worth 50 cents per lb.?

ALGEBRA.

1. Define the following terms: greatest common divisor, least common multiple, a rational quantity, a surd.
2. Multiply $a^q + b^{st} + c^{-\frac{1}{q}}$ by $a^{-2q} + c^{\frac{1}{q}}$.
3. Divide $x^{\frac{3}{2}} + x^{\frac{1}{2}}y - xy^{\frac{1}{2}} - y^{\frac{3}{2}}$ by $x^{\frac{1}{2}} - y^{\frac{1}{2}}$.
4. Find the greatest common divisor of $6x^4 + x^3 - x$, $4x^3 - 6x^2 - 4x + 3$ and $2x^3 + x^2 + x - 1$.
5. Find the least common multiple of $(x+2a)^3$, $(x-2a)^3$ and (x^2-4a^2) .

6. Add $\frac{13a-29b}{5(a-b)}$, $-\frac{7b-21a}{5(a-b)}$ and $-\frac{9b-11a}{5(a-b)^2}$.
7. Given $\frac{1}{x} + \frac{1}{y} = a$, $\frac{1}{x} - \frac{1}{z} = b$ and $\frac{1}{y} - \frac{1}{z} = c$, find the values of x, y and z .
8. Find the value of x in the equation $\sqrt{x+a} = \sqrt{x}+a$.
9. From $5a^2b^2\sqrt{c}$ take $2\sqrt{a^4b^4c}$.
10. A and B lay a wager of 10s. ; if A loses he will have 35s. less than twice as much as B will then have, but if B loses he will have seven-nineteenths of what A will then have; how much money had each at first?

Trimestrial Examinations, 1870-71.

The character of the examinations held at the close of each Trimester is indicated by the following specimens of examination papers, used during the past or third academic year. In many cases the examinations were both written and oral. The papers are classified by Colleges.

COLLEGE OF AGRICULTURE.

VETERINARY MEDICINE AND SURGERY—PROFESSOR LAW.

1. What is a quittor? State its common causes, its more serious consequences, and the principles of its treatment.
2. Enumerate the injuries and diseases to which the hock joint is subject. Mention their more frequent causes and how they should be treated.
3. What is *canker* in a horse's foot? And how should it be treated?
4. What conditions would necessitate a resort to tracheotomy? Describe the operation stating particularly what is to be cut and what avoided.
5. What are the differential signs of *broken wind*, and *thick wind*? What are their respective lesions, and how can they be treated?
6. What are the symptoms of bronchitis? State the various causes, the different forms and the treatment applicable to each.
7. Mention the different forms of choking in the ox, and state particularly how they can be prevented and how relieved.
8. Define colic in its different forms and give a rational treatment for each.