

hour; two thirds of the time he travelled by railway train, at an average rate of 25 miles an hour; and the remaining hour of the time he rode the remaining 7 miles of his journey. Find the distance from M to T.

3. At what time between 4 and 5 P.M. is the minute-hand exactly 2 minute-spaces ahead of the hour-hand of a watch marking correct time?

4. A man, assisted part of the time by a boy, completed a job in 15 hours. The man received five-sixths of the pay and the boy received one sixth, but the man was paid at double the rate the boy was, in proportion to the amount of work each did. How long would the man, unassisted, have taken to accomplish the job?

5. How much water must be added to a mixture of 15 gallons of vinegar, costing 52 cents the gallon, and 13 gallons, costing 49 cents the gallon, that \$5 may be gained by selling the whole at 15 cents a quart?

6. A total of 250 marks is to be allowed to a paper of 10 questions. To the first 7 questions the average is given. Divide the remaining marks so as to allow 7 marks to the tenth question, and 5 marks to the ninth for every three marks allowed to the eighth.

7. A bookseller charges on certain books 35 cents on the shilling of the published price, and gives a discount of 35 per cent. What is the actual rate he charges on the shilling?

8. A bill for \$253.03, dated 7th October, and payable at London in 3 months from date, was discounted in Toronto on 20th October, the discount being at the rate of 9% per annum, and 45 cents being charged for exchange. Find the proceeds of the bill.

9. A cubic foot of water weighs 62.426 pounds, and a gallon of water weighs 10 pounds. How many gallons will a cylindrical cistern of 5 feet diameter by 4 feet deep hold?

PRINCIPLES OF READING AND ORTHOEPY.

Examiner—J. Dearness.

1. Show all the different meanings the following sentence may have according to the different positions of the emphasis:

Did you see your brother to-day?

(Value 6)

2. "Hallo, driver! Take a passenger?" shouted he.
"Room on top!" answered the driver.
Up mounted David and bowled away merrily.

Distinguish between pitch and force; illustrate the distinction by reference to the above example. (Value 6).

Mark inflections on "Hallo," "driver," "passenger." (Value 3).

3. Who does not venerate the chief of that illustrious family, who, being stricken by misfortune, wisely and greatly turned his attention to "coals,"—the accomplished, the epicurean, the dirty, the delightful Micawber? I may quarrel with Mr. Dickens's art a thousand and a thousand times; I delight and wonder at his genius; I recognize in it—I speak with awe and reverence—a commission from that Divine Beneficence whose blessed task we know it will one day be to wipe every tear from every eye.

(a) What difference, if any, do you make in reading "who" (l. 1) and "who" (l. 2); "thousand" and "thousand" (l. 5); "every" and "every" (l. 8)? (Value 6).

(b) Mark the modulations of the voice heard in reading "the accomplished, the epicurean, the dirty, the delightful Micawber." (Value 5).

What difference in the stress on "dirty" and on "delightful"? (Value 2).

(c) Point out the phrases and clauses in the extract that should be read in different tone and pitch from those of the context, also the examples of emphasis by contrast. (Value 3 + 2).

(d) How do you show, in reading, the connection between "recognize" (l. 6) and "commission" (l. 7)? How would you avoid connecting "commission" with "to wipe" (l. 8)? (Value 4)

4. Farewell ' farewell ' but this I tell
To thee, thou Wedding Guest!
He prayeth well, who loveth well
Both man and bird and beast.
He prayeth best, who loveth best
All things both great and small;
For the dear God who loveth us,
He made and loves them all.

(a) Mark, by vertical lines, the pauses in the first stanza. (Value 4).

(b) What differences should be made in reading lines 3 and 5? (Value 3).

(c) Distinguish between emphasis and stress, and illustrate by reference to these stanzas. (Value 8).

5. Divide the following words into syllables, accentuate, indicate the sounds of the vowels and italicized consonants:—

epicurean, finances, amenable, levee, chivalrous, pedagogy, usury, deficit, Mogul, misanthropic, leisurely, posthumous.

(Value 18).

NOTE.—In indicating the sounds of letters, the candidate is recommended to use phonetic spelling. If he uses diacritical marks other than the long (—), short (˘), and obscure (·), he must give the key to such other marks.

(60 marks will be counted a full paper).

EUCLID.

Examiner—J. Dearness.

NOTE.—Contractions and symbols, except of operation, may be employed. Use capital letters on the diagrams. It is recommended that every step in the demonstration should begin on a new line, and references and authorities be placed opposite in the margin.

1. Wherein, if at all, are the following definitions incomplete:—

An acute angled triangle is that which has two acute angles. (Value 2).

A parallelogram is a rectilinear figure whose opposite sides are parallel. (Value 2).

Parallel straight lines are such as being produced ever so far do not meet. (Value 3).

2. Distinguish between a rhombus and a square. What parallelograms are not rectangles? Illustrate by diagrams. (Value 5).

3. The angles which one straight line makes with another upon the same side of it are together equal to two right angles. (Value 8).

What is a corollary? Give an example and demonstrate it. (Value 7).

AB makes two unequal angles upon one side of CD; show that the bisectors of these two angles are perpendicular to each other. (Value 7).

4. Two triangles have two angles of the one equal to two angles of the other, each to each, and the side adjacent to the equal angles in one triangle equal to the corresponding side of the other. Show that the two triangles are equal in every respect. (Value 9).

Through a given point draw a straight line which shall form with two given intersecting straight lines an isosceles triangle. (Value 8).

5. If a side of a triangle be produced, the exterior angle is equal to the sum of the two interior opposite angles, and the sum of the three interior angles to two right angles. (Value 9).

If the three sides of a triangle be produced both ways nine angles are formed outside the triangle; compare the sum of these nine angles with that of the three interior angles. (Value 5).

Which of the nine outside angles are called exterior angles? (Value 3).

6. To describe a square upon a given straight line. (Value 8).

Describe the square of which AB is the diagonal. (Value 8).

7. Construct a square equal to the sum of two given squares. (Value 8).

The sides of a triangle are measured by 2, 3, and 4 units respectively. Show whether it is an obtuse angled triangle. (Value 8).

A GEOGRAPHICAL GAME.

Each person takes pencil and paper, and in a given number of minutes writes as many geographical words beginning with a specified letter as he can recall. When "Time" is called a player reads his list, and any name that he has and the others have not, counts as many for him as there are players besides himself. Each player then reads his list in turn, and the one who scores the greatest number when all have read wins the game. If any name is challenged during the reading, and the player is unable to describe if it be a river, sea, bay, lake, etc., or locate it if it be a city, mountain, cape, etc., every other player counts one.