SAMPLE PAPER

M-STAR

Momentum Scholarship Test for Admission & Rewards

10th Edition, 2025

Talent HUNT Exam

(Class VIII Studying Moving to Class IX)
Science, Mathematics & Mental Ability

INSTRUCTIONS FOR CANDIDATE

1. Duration of Test is 1 hr.
2. The Test Booklet consists of 40 questions. The maximum marks are 90. There is **no negative marking** for wrong answer.
3. **Pattern of the questions are as under:**

   The question paper consists of three subjects i.e., **Science, Mathematics and Mental Ability.** There are two sections in this question paper.

(i) **Section-I:** This section contains **35 multiple choice questions**, which have **only one correct** answer. Each question carries **+2 marks** for correct answer.

(ii) **Section-II:** This section contains 5 multiple choice questions, in which **one or more than one choice(s)** is/are correct. Each question carries **+4 marks** for correct answer.

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SECTION - I

This section contains **35 multiple choice questions**. Each question has 4 choices (A), (B), (C) and (D) out of which **ONLY ONE** is correct. Each question carries **+2 Marks** for correct answer.

1. A force can :

(A) Change the direction of a moving body (B) Change the state of rest or uniform motion of a body.

(C) Change the shape of a body (D) All of the above

2. When we press the bulb of a dropper with its nozzle kept in water, air in the dropper is seen to escape in the form of bubbles. Once we release the pressure on the bulb, water gets filled in the dropper. The rise of water in the dropper is due to :

(A) Pressure of water (B) Gravity of the earth

(C) Shape of rubber bulb (D) Atmospheric pressure

3. The friction force.....with the .....in roughness of the surfaces.

(A) Increase, increase (B) Decrease, increase (C) Decrease, increase (D) Increase, Decrease

4. The frictional force exerted by fluids is called-

(A) Lift (B) Drag (C) Rolling friction (D) Dynamic friction

5. Velocity of sound is maximum in

(A) iron (B) mercury (C) water (D) air

6. The speed of electromagnetic waves in air is

(A) 3×10^5 km/s (B) 3×10^6 km/s (C) 3×10^7 km/s (D) 3×10^8 km/s

7. Which of the following is a good conductor of electricity?

(A) Tap water (B) Distilled water (C) Sea water (D) Rain water

8. Which one of the following is a non-combustible substance?

(A) Coal (B) Iron (C) Straw (D) Wood

9. Which is a zone of no combustion?

(A) Blue zone (B) Dark zone (C) Luminous zone (D) All of the above

10. For combustion reactions :

(A) Air is essential (B) Combustible substance is essential

(C) Both (A) & (B) (D) None of these

11. What percentage of energy requirement of our country is met by coal?

(A) 10 (B) 30 (C) 65 (D) 100

12. Maximum carbon containing coal is -

(A) Peat (B) Lignite (C) Bituminous (D) Anthracite

13. Which of the following machines would you use to harvest a crop as well as to beat out the grains from the chaff?

(A) Mechanical harvester (B) Combine

(C) Thresher (D) Harrow

14. Plants get their nitrogen from the soil as –

(A) Nitrates (B) Nitrogen dioxide (C) Nitrogen oxide (D) Nitric acid

15. Comma shaped bacteria are termed as -

(A) Bacilli (B) Cocei (C) Spirilla (D) Vibrio

16. Nitrifying bacteria convert the-

(A) Nitrates into nitrites (B) Ammonium salts into nitrates

(C) Ammonium salts into amino acids. (D) All of the above

17. Environment in which an animal lives is called its

(A) habitat (B) home (C) reservoir (D) resort.

18. Which of the following animal does not show metamorphosis?

(A) fish (B) frog

(C) silk moth (D) mosquito

19. Let x, y and z be distinct integers where x and y are odd and positive, and z is even and positive. Which one of the following statements cannot be true?

(A) $(x - z)^2y$ is even (B) $(x - z)y^2$ is odd (C) $(x - z)y$ is odd (D) $(x-y)^2z$ is even

20. A student was asked to multiply a number by $\frac{3}{2}$. Instead he divided the number by $\frac{3}{2}$ and obtained a number smaller by $\frac{2}{3}$, the number is

(A) $\frac{4}{5}$ (B) $\frac{3}{5}$ (C) $\frac{2}{3}$ (D) $\frac{1}{2}$

21. If the volume of a cube is 512 cu. metres. What is the length of one side of the cube?

(A) 6.8 m (B) 7.8 m (C) 8 m (D) 9 m

22. Which is the smallest three-digit perfect cube ?

(A) 125 (B) 343 (C) 729 (D) 512

23. If $A : B = \frac{1}{2} : \frac{3}{8}$, $B : C = \frac{1}{3} : \frac{5}{9}$ and $C : D = \frac{5}{6} : \frac{3}{4}$, then the ratio A : B : C : D is :

(A) 4 : 6 : 8 : 10 (B) 6 : 4 : 8 : 10 (C) 6 : 8 : 9 : 10 (D) 8 : 6 : 10 : 9

24. If $0.6x + 0.8 = 0.28x + 1.16$ then x =

(A) $x = \frac{6}{7}$ (B) $x = \frac{9}{8}$ (C) $x = \frac{11}{2}$ (D) $x = \frac{13}{5}$

25. The value of x in $\frac{x+1}{2}+\left(x-\frac{x-1}{3}\right)=2$ is –

(A) 1 (B) 2 (C) 3 (D) 0

26. When the data is collected by some one else in another context and used by the investigator for his/her purpose, then it is called :

(A) Primary data (B) Secondary data (C) Row data (D) Grouped data

27. The angles of a quadrilateral are in the ratio 3:5:9:13 all angles of a quadrilateral are:

(a) 36°, 60°, 108°, 156° (b) 30°, 60°, 45°, 15° (c) 45°, 20°, 30°, 60° (d) 30°, 90°, 60°, 20°

28. In a quadrilateral ABCD, the angles A,B,C and D are in the ratio 1:2:3:4. Then the measure of each angles of the quadrilateral is :

(a) 36°, 72°, 108°, 144° (b) 45°, 110°, 55°, 150°

(c) 15°, 130°, 45°, 150° (d) None of these

29. Going 50 m to the South of her house, Radhika turns left and goes another 20 m. Then, turning to the North, she goes 30 m and then starts walking to her house. In which direction is she walking now ?

(A) North-west (B) North (C) South-west (D) East

30. A child is looking for his father. He went 90 metres in the East before turning to his right. He went 20 metres before turning to his right again to look for his father at his uncle's place 30 metres from this point. His father was not there. From here he went 100 metres to the North before meeting his father in a street. How far did the son meet his father from the starting point ?

(A) 80 metres (B) 100 metres (C) 140 metres (D) 260 metres

Direction (Q. 31 - 32) : Select the best alternativew which fits in place of (?) marks.

31. Knife : Cut : : Axe : ?

(A) Lacerate (B) Slice

(C) Chop (D) Sever

32. 63 : 31 : : ? : 21

(A) 43 (B) 41

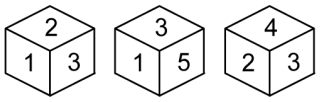
(C) 44 (D) 45

Direction (Q. 33 - 34) : In each of the following questions three out of four alternatives contain alphabet placed in a particular form. Find the one that does not belong to the group.

33. (A) EAC (B) ZUW (C) KGI (D) RNP

34. (A) CdaB (B) VwtU (C) LmjK (D) RsqP

35. What should be the number opposite 3 ?



(i) (ii) (iii)

(A) 1 (B) 6 (C) 5 (D) 4

SECTION - II

This section contains **5 multiple choice questions**. Each question has 4 choices (A), (B), (C) and (D) out of which **ONLY ONE OR MORE THAN ONE** choice(s) is/are correct. Each question carries **+4 makrs** for correct answer.

36. The most common industrial application of chemical effect of electric current is :

(A) Electroplating (B) Galvanising (C) Anodising (D) Electrolysis

37. Coal gas is a mixture of-

(A) $CO + H_2$ (B) $CO + N_2$ (C) $CH_4 + CO + H_2$ (D) None of these

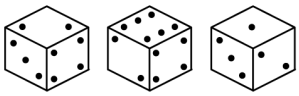
38. Growing of plants in an area where forest existed earlier but has been removed is known as

(A) deforestation (B) reforestation (C) afforestation (D) both (A) and (B).

39. The value of $\sqrt{1\frac{1}{2} - [1\frac{1}{2} - 1\frac{1}{2} + (1\frac{1}{2} - \overline{1\frac{1}{2} - 1\frac{1}{4}})]}$ is :

(A) $\frac{1}{2}$ (B) $\frac{1}{4}$ (C) $\frac{1}{16}$ (D) $1\frac{1}{5}$

40. Find the number of dots on the face opposite the face bearing 3 dots?



(i) (ii) (iii)

(A) 5 (B) 6 (C) 4 (D) Cannot be determined

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