



SAMPLE TEST PAPER A TALENT SEARCH EXAM 2021



Time : 30 Minutes

Class : 8th STAGE - 1

Max. Marks : 100

INSTRUCTIONS

DO NOT BREAK THE SEAL WITHOUT BEING INSTRUCTED TO DO SO BY THE INVIGILATOR

[A] General :

1. Attempt ALL the questions. Answer have to be **darkened** on the **OMR** sheet.
2. This question paper contains **25 questions**.
3. The question paper consists of **THREE Parts**, e.g. **Mathematics (1 to 10), Science (11 to 20) & Mental Ability (21 to 25)**
4. Blank spaces are provided at the bottom of each page for rough work. No additional sheets will be provided for rough work.
5. Blank paper, clipboard, log tabs, slide rules, calculators, cellular phones, pagers and electronic gadgets in any form are **NOT** allowed.
6. Do not Tamper / mutilate the **OMR sheet** or this booklet.
7. Do not break the seals of the question-paper booklet before instructed to do so by the invigilator.
8. **SUBMIT** the OMR sheet to the invigilator after completing the test & take away the test paper with you.

[B] Filling of OMR Sheet :

9. In all the parts, each question will have 4 choices out of which **only one choice is correct**
10. Use only Black/Blue ball point pen for filling the OMR sheet.
11. On the OMR sheet, darken the appropriate bubble for each character of your name, Registration No., Phone No. etc.

[C] Marking Scheme :

12. For each right answer you will be **awarded 4 marks** if you darken the bubble corresponding to the correct answer and **zero marks** if no bubble is darkened. In case of bubbling of incorrect answer, **minus one (-1)** mark will be awarded.

Best of Luck

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PART - I MATHEMATICS**(SINGLE CORRECT ANSWER TYPE)**

- This Part contains **TEN** questions.
- Each question has **FOUR** options [A], [B], [C] and [D]. **ONLY ONE** of these four options is correct.
- For each question, darken the bubble(s) corresponding to all the correct option(s) in the OMR.

Q.1 If $3(x-2)^2 = 507$, then x can be

- (A) 13 (B) 12 (C) 15 (D) 14

Q.2 If $4(4x)^7 = 4^{6^2}$, then what is the value of x ?

- (A) 5 (B) 25 (C) 64 (D) 256

Q.3 If $a^x = b^y = c^z$ and $a^3 = b^2 c$, then $\frac{3}{x} - \frac{2}{y} =$

- (A) $\frac{x}{y}$ (B) $\frac{y}{x}$ (C) xyz (D) $\frac{1}{z}$

Q.4 If $x + \frac{1}{x} = 7$, then $x^3 - \frac{1}{x^3}$ is

- (A) $9\sqrt{5}$ (B) $144\sqrt{5}$ (C) $135\sqrt{5}$ (D) $\sqrt{5}$

Q.5 Incomes of A and B are Rs 3500 and Rs 4200 respectively. The ratio of their savings of A and B is 4 : 3 and the ratio of their expenditures is 3 : 4. Find the savings of A.

- (A) Rs. 800 (B) Rs 600 (C) Rs 900 (D) Rs 1000

Q.6 If the weight of 73 bags of cements is 4106.25 kg, what will be the weight of 96 bags ?

- (A) 6300 kg (B) 5400 kg
(C) 5400.70 kg (D) 6300.82 kg

Space for rough works

- Q.7 A shopkeeper bought a book for Rs 300. Due to the damage caused during transportation, he sold for Rs. 270. Find the loss percentage.
- (A) 10% (B) 15% (C) 30% (D) 20%
- Q.8 The cost of an item is 20% less than its marked price. At what percentage above its cost price is the item marked?
- (A) 10% (B) 12% (C) 20% (D) 25%
- Q.9 If the base of a triangle is doubled and height remains the same, then new area will be :
- (A) 2 times (B) 3 times
(C) 4 times (D) None of these
- Q.10 If $x + y + z = 0$ and $\frac{x^3 + y^3}{xyz} = \frac{y^3 + z^3}{xyz} = \frac{x^3 + z^3}{xyz} = a$, then which of the following can be a ?
- (A) 2 (B) 3 (C) 6 (D) 9

Space for rough works

PART - II SCIENCE

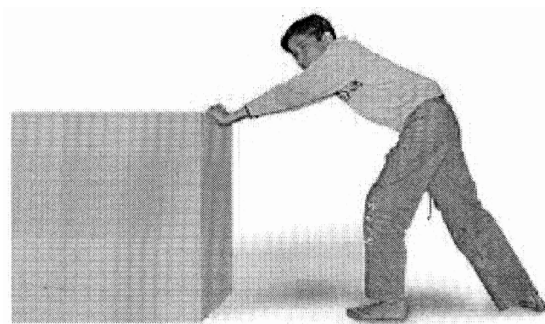
(SINGLE CORRECT ANSWER TYPE)

- This Part contains **TEN** questions.
- Each question has **FOUR** options [A], [B], [C] and [D]. **ONLY ONE** of these four options is correct.
- For each question, darken the bubble(s) corresponding to all the correct option(s) in the OMR.

Q.11 Two objects repel each other. This repulsion could be due to

- | | |
|---------------------------|---|
| (A) frictional force only | (B) electrostatic force only |
| (C) magnetic force only | (D) either a magnetic or an electrostatic force |

Q.12 In Fig. a boy is shown pushing the box from right to left. The force of friction will act on the box



- | | |
|---|--|
| (A) from right to left (\leftarrow) | (B) from left to right (\rightarrow) |
| (C) vertically downwards (\downarrow) | (D) vertically upwards (\uparrow) |

Q.13 Ultrasound has frequency of vibration

- | | |
|-------------------------------|--------------------------------|
| (A) between 20 and 20, 000 Hz | (B) below 20 Hz |
| (C) above 20,000 Hz | (D) between 500 and 10, 000 Hz |

Space for rough works

- Q.14 During dry weather, while combing hair, sometimes we experience hair flying apart. The force responsible for this is
- (A) force of gravity. (B) electrostatic force.
- (C) force of friction. (D) magnetic force
- Q.15 Metals generally react with dilute acids to produce hydrogen gas. Which one of the following metals does not react with dilute hydrochloric acid?
- (A) Magnesium (B) Aluminium (C) Iron (D) Copper
- Q.16 Which of the following reacts with cold water vigorously?
- (A) Carbon (B) Sodium (C) Magnesium (D) Sulphur
- Q.17 Polycot is obtained by mixing
- (A) nylon and wool (B) polyester and wool
- (C) nylon and cotton (D) polyester and cotton
- Q.18 The most suitable material for the preparation of handles of cooking utensils is
- (A) polythene (B) PVC (C) nylon (D) bakelite
- Q.19 Soil fertility is reduced by
- (A) Crop rotation (B) Nitrogen fixing bacteria
- (C) Decaying organic matter (D) Intensive agriculture
- Q.20 The unwanted wild plant growing with the crop plant called ?
- (A) weed (B) seed (C) minor crops (D) grasses

Space for rough works

PART - III MENTAL ABILITY**(SINGLE CORRECT ANSWER TYPE)**

- This Part contains **FIVE** questions.
- Each question has **FOUR** options [A], [B], [C] and [D]. **ONLY ONE** of these four options is correct.
- For each question, darken the bubble(s) corresponding to all the correct option(s) in the OMR.

Q.21 In a certain code language PERIMETER is coded as ODQHLFUFSS. What is the code of CHARACTER.

- (A) GBZQBDFSS (B) BGZQZDFSS
(C) SFUDBQZGB (D) BGZBDFSS

Q.22 Find the missing character (?)

5	8	11
7	?	4
3	2	10
71	98	127

- (A) 8 (B) 6 (C) 9 (D) 2

Q.23 Given interchanges : Signs + and \times and numbers 4 and 5. Now which of the following equation is correct ?

- (A) $5 \times 4 + 20 = 40$ (B) $5 \times 4 + 20 = 45$
(C) $5 \times 4 + 20 = 104$ (D) $5 \times 4 + 20 = 95$

Q.24 One number is missing in the series. You have to understand the pattern of the series and insert the number.

6, 126, ?, 9, 108, 12, 7, 133, 19, 12, 72, 6

- (A) 21 (B) 23 (C) 30 (D) 35

Q.25 A wooden cube is painted with purple on all the four adjoining faces and yellow on two opposite faces then it is into 216 identical smaller cubes then how many cubes are there having two different colour on them.

- (A) 24 (B) 20 (C) 40 (D) 48

Space for rough works

SAMPLE TEST PAPER ANSWER KEY

STAGE-1_(CLASS 8th)

- | | | | |
|---------|---------|---------|---------|
| 1. (C) | 2. (D) | 3. (D) | 4. (B) |
| 5. (A) | 6. (B) | 7. (A) | 8. (D) |
| 9. (A) | 10. (A) | 11. (D) | 12. (B) |
| 13. (C) | 14. (B) | 15. (B) | 16. (B) |
| 17. (B) | 18. (D) | 19. (D) | 20. (A) |
| 21. (B) | 22. (B) | 23. (C) | 24. (D) |
| 25. (C) | | | |

V-MAT REWARDS & RECOGNITION

