



INTSO EDUCATION

APTITUDE TALENT SEARCH OLYMPIAD (ATSO) 2015 - 2016

STAGE - 2

TIME : 60 min.

CLASS : VIII

Max. Marks : 50

Instructions:

- ⇒ Fill the OMR sheet completely and carefully.
- ⇒ Each question carries one mark and has only one correct answer. $\frac{1}{4}$ (one fourth) marks will be deducted for indicating incorrect response of each question.
- ⇒ The question paper contains 50 questions to be answered in 60 minutes.

NUMBER SERIES :

1. 26, 27, 31, 40, 56, _____ []
1) 62 2) 64 3) 72 4) 81
2. 2, 2, 3, 6, 15, _____ []
1) 30 2) 45 3) 60 4) 28
3. 2, 12, 36, 80, 150, _____ []
1) 194 2) 210 3) 252 4) 258
4. 5, 15, 65, 255, _____ []
1) 512 2) 1024 3) 1025 4) 510
5. 6, 13, 27, 55, 111, _____ []
1) 128 2) 210 3) 181 4) 223

LETTER SERIES :

6. M 6R, J 8 N, G 11 J, D 16 F, _____ []
1) A 20 B 2) A 22 B 3) A 21 B 4) A 23 B
7. AYD, BVF, DRH, _____, KGL []
1) FMI 2) GMJ 3) GLJ 4) HLK
8. A, G, L, P, S, _____ []
1) U 2) W 3) X 4) Y
9. BD, EH, IM, NS, _____ []
1) PZ 2) SZ 3) ZT 4) TZ

NUMBER ANALOGY :

10. 16 : 56 :: 32 : ? []
1) 96 2) 112 3) 118 4) 128
11. 8 : 28 :: 27 : ? []
1) 55 2) 63 3) 34 4) 65
12. 42 : 56 :: 110 : ? []
1) 18 2) 132 3) 136 4) 140
13. 8 : 520 :: 9 : ? []
1) 710 2) 738 3) 343 4) 350

LETTER ANALOGY :

14. DF : KM :: EG : ? []
 1) KN 2) LX 3) LN 4) PR
15. DEAR : FGCT :: MANY : ? []
 1) NOPR 2) OBPA 3) OCPZ 4) OCPA
16. Cigarette : Tobacco []
 1) Coffee : Caffeine 2) Milk : Bottle 3) Cigar : Filter 4) Shoes : Socks
17. Energy : Joule []
 1) Axe : Grind 2) Ammeter : Current 3) Power : Ampere 4) Resistance : Ohm

CODING & DECODING :

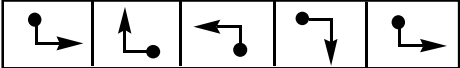
18. In a Certain Code Language, SACHIN is written as HZXSRLM, then what will be the code of ZRMO ? []
 1) AIOM 2) AINK 3) AIML 4) AINL
19. In a Certain Code, STRONG is written as UWTRPJ. How is CREATE written in that Code ? []
 1) EUHDVA 2) EUGEVIH 3) EUGDXH 4) EUGDVH
20. In a Certain Code Language, ORIG is written as HJSP. How is MELT written in that Code ? []
 1) UMGN 2) UMFO 3) UMFN 4) UMBN
21. If SPIDER is written as PSDIRE in a Certain Code how would COMMON be written in that Code ? []
 1) OCOMMO 2) OCMMNO 3) OCMOMN 4) OCMMON

ODD MAN OUT :

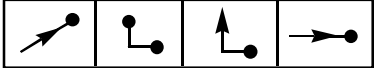
22. 1) 43 2) 47 3) 61 4) 51 []
23. 1) 99 2) 121 3) 279 4) 594 []
24. 1) 136 2) 324 3) 253 4) 631 []
25. 1) 21 2) 28 3) 42 4) 39 []

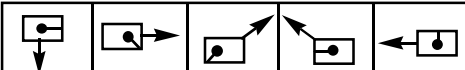
NONVERBAL SERIES :

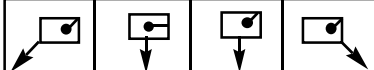
PROBLEM FIGURES

26. 
 A B C D E

ANSWER FIGURES

- 
 1 2 3 4 []

27. 
 A B C D E

- 
 1 2 3 4 []

ANALOGY :

28. 
 A B C D 1 2 3 4 []

29.

V	W	^	?
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M	M	N	W
---	---	---	---

 []
- A B C D
- 1 2 3 4

CLASSIFICATION - CHOOSE ONE FIGURE WHICH IS DIFFERENT FROM REST :

30.

A	F	Z	E
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 []
- 1 2 3 4

EQUATIONS :

31. The cost of 3 pens, 4 erasers and 5 sharpners is Rs. 40. The cost of 5 pens, 7 erasers and 9 sharpners is Rs. 70. Find the total cost of one of each. []
 1) 20 2) 30 3) 10 4) Can't be determined
32. A bag contains 50 paise, Rs. 1 and Rs. 2 coins in the ratio of 2 : 3 : 4, if the total value of the coins is Rs. 24. Find the number of Rs. 2 coins in the bag. []
 1) 6 2) 8 3) 4 4) 2
33. The present age of father is two years more than thrice his son's age 10 years later. The age of the father ten years later will be 2 years more than 7 times his son's present age. Find the present age of the father. []
 1) 42 2) 56 3) 62 4) 70
34. The sum of a two - digit number and the number formed by reversing its digits is 110. If the tens digit is 2 more than the units digit. Find the number. []
 1) 53 2) 86 3) 64 4) 75
35. If the cost of each chocolate is reduced by Rs. 5, then 5 more chocolates can be purchased for Rs. 50. Find the cost of each chocolate before reduction. []
 1) 15 2) 12 3) 10 4) 2

RATIO & PROPORTION :

36. $P : Q = 5$ and $P + Q = 120$ what is the value of Q ? []
 1) 100 2) 20 3) 40 4) 60
37. The ratio of the number of boys and girls in a class is 8 : 11. If 8 boys join and 12 girls leave the class, then the ratio of the number of girls to boys is 4 : 5. What is the strength of the class ? []
 1) 95 2) 76 3) 57 4) 84
38. x varies inversely as the square of y. x is 48 when y is 3. What is the value of x when y is 4 ? []
 1) 27 2) 24 3) 25 4) 26

PERCENTAGES - PROFIT & LOSS :

39. By what percent is 64 less than 80 ? []
 1) 25 % 2) 20 % 3) 50 % 4) 30 %
40. The value of a land appreciated by 20% in the first year and by 30% in the second year. How much did the value of land appreciate in these two years ? (in percentage) []
 1) 56% 2) 50% 3) 46% 4) 60%
41. The total strength of the class is 80. If 20% and 30% more boys and girls respectively join in the class then the strength increases to 99. Find the total number of boys present in the class initially. []
 1) 30 2) 60 3) 50 4) 39

42. A person purchases 45 pens for Rs. 1125 and sells at 42 pens for Rs. 1134. Find the profit percentage.
 1) 10% 2) 8% 3) $7\frac{3}{4}\%$ 4) $8\frac{1}{4}\%$ []
43. A person purchased a certain number of fruits for Rs. 1800. One third of fruits sold at a loss of 10%. At what percent of profit should he sell the remaining fruits so as to achieve a profit of 20% overall ?
 1) 25% 2) 30% 3) 35% 4) 40% []
44. If the cost price of six apples is equal to the selling price of five apples, then find the profit percentage.
 1) 20% 2) 25% 3) $16\frac{2}{3}\%$ 4) $33\frac{1}{3}\%$ []
45. If the numerator of a fraction be increased by 15% and its denominator be deminished by 8% the value of the fraction is $\frac{15}{16}$. Find the original fraction ?
 1) $\frac{5}{4}$ 2) $\frac{3}{8}$ 3) $\frac{3}{4}$ 4) $\frac{5}{7}$ []

MENSURATION :

46. If the sides of a Rectangle are in the ratio 2 : 1 and if its area is same as that of a square of side 8 cm., then the perimeter of the Rectangle in cm., is
 1) $24\sqrt{2}$ 2) $12\sqrt{2}$ 3) $8\sqrt{2}$ 4) $4\sqrt{2}$ []
47. The number of revolutions made by a wheel of 42 cm diameter in travelling a distance of 1320 meters is
 1) 30 2) 300 3) 400 4) 1000 []
48. The sides of a triangle are in the ratio $\frac{1}{2} : \frac{1}{3} : \frac{1}{4}$. If the perimeter of a triangle is 13 cm. What is the length of the smallest side (in cm) ?
 1) 3 2) 4 3) 5 4) 6 []
49. The curved surface area of cylinder is 1000 cm^2 and its diameter is 20 cm. The volume of the cylinder is ?
 1) 5000 cm^3 2) 6000 cm^3 3) 6500 cm^3 4) 6100 cm^3 []
50. The volume of a cube (in cubic centimeters), whose total surface area is 384 square centimeters, is
 1) 64 2) 512 3) 128 4) 256 []

