INTSO EDUCATION

APTITUDE TALENT SEARCH OLYMPIAD (ATSO) 2015 - 2016

STAGE - 1

TIME : 60 min.
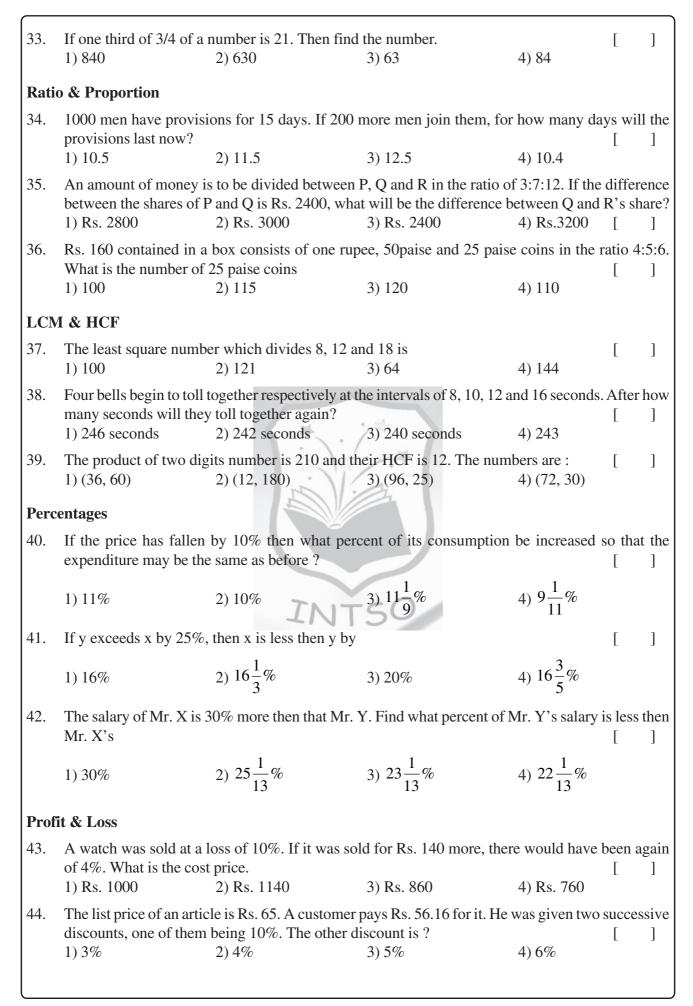
CLASS : VIII

Max. Marks : 50

Instructions:
⇨ *Fill the OMR sheet completely and carefully.*
⇨ *Each question carries one mark and has only one correct answer. No negative marks.*
⇨ *The question paper contains 50 questions to be answered in 60 minutes.*

Number Series

1. 9, 7, 14, 11, 33, 28 ,___, 133, 931.   [   ]
   1) 64   2) 46   3) 140   4) 123

2. 6, 12, 23, 44, 85, ___.   [   ]
   1) 166   2) 174   3) 165   4) 168

3. 80, 62, 46, ___ 20.   [   ]
   1) 36   2) 40   3) 38   4) 32

4. 92, 23, 27, 9, 12, 6, ___.   [   ]
   1) 20   2) 16   3) 8   4) 10

5. 6, 7, 15, 46, 185, ___.   [   ]
   1) 920   2) 924   3) 830   4) 926

Letter Series

6. BY, IQ, NK, QG ___.   [   ]
   1) RF   2) TF   3) SE   4) E

7. C, Z, F, X, I, V, L, T, O, ___, ___.   [   ]
   1) RR   2) SR   3) OP   4) OQ

8. L, N, J, M, O, K, N, P, L, O, ___.   [   ]
   1) P   2) R   3) Q   4) N

9. KUZ, MOX, OIV, QET, ___.   [   ]
   1) SUR   2) SAQ   3) SAR   4) SAS

10. C, G, N, X, K, A, ___.   [   ]
    1) L   2) M   3) N   4) T

Odd Man (Classification)

11. 1) Copper   2) Mercury   3) Iron   4) Zink   [   ]

12. 1) Diabetes   2) Smallpox   3) Chicken pox   4) Plague   [   ]

13. 1) Kitten   2) Goat   3) Calf   4) Lamb   [   ]

14. 1) Boy   2) Girl   3) Lady   4) Child   [   ]

15. 1) Rose   2) Lotus   3) Jasmine   4) Hibiscus   [   ]

Number Analogies

16. 12 : 35 : : ___ : 63   [   ]
   1) 21   2) 18   3) 16   4) 14

17. 25 : 29 : : 31 : ___   [   ]
   1) 32   2) 33   3) 10   4) 11

18. 2 : 9 : : 64 : ___   [   ]
   1) 175   2) 257   3) 625   4) 216

19. 4 : 12 : : 10 : ___.   [   ]
   1) 20   2) 90   3) 60   4) 45

20. 48 : 63 : : 624 : ___.   [   ]
   1) 1520   2) 1230   3) 677   4) 675

Letter and Word Analogy

21. AEFJ : KOPT : : ___ : QUVZ   [   ]
   1) GKLP   2) GKLQ   3) HKLP   4) KLQM

22. PRLN : XZTV : : JLFH : ___ :   [   ]
   1) RTNP   2) NPRT   3) NRPT   4) NTRP

23. SAMOHT : SINNZT : : RELHEM : ___ :   [   ]
   1) LFG MDS   2) QFKIDN   3) SFMIFN   4) QDKGDL

24. ZXYW : USTR : : PNOM : ___ :   [   ]
   1) HIJK   2) KHIJ   3) KIJH   4) IHKJ

25. ABDH : ZYWS : : EFHL : ___ :   [   ]
   1) VOSU   2) VUSO   3) VUSP   4) USOV

Letter and Number Coding

26. In certain code, F R U I T is coded as I T V K W. Then how is the word S W E E T coded ?
   1) VYFFW   2) VYFDJ   3) VYGFW   4) VYFGW   [   ]

27. If BOUQUET is coded as YMRORCQ, what is the code of GARLAND ?   [   ]
   1) DXOIXKA   2) EYPJYLB   3) DYOJXLA   4) EXPJXLB

28. In a certain code, INK is coded as 6C7G10A. In the same code, which word is coded as 8H1D7G ?   [   ]
   1) PEN   2) PAN   3) CAN   4) MAN

29. If PRAVEEN is coded as NFEWASP, what is the code of the word SATISH ?   [   ]
   1) HTIUAT   2) HITAUT   3) HSITAS   4) HTIAUT

30. If RAVI is coded as E N I V then how is KUMAR coded as   [   ]
   1) XHZNE   2) XHONE   3) XOHEN   4) XHOEN

Equations

31. What is the difference between the largest number and the least number written with the figures 3,4,7,0,3 ?   [   ]
   1) 70983   2) 43893   3) 43983   4) 43883

32. Sum of two consecutive even terms lacks by 98 from their product. Find the sum of these numbers
   1) 18   2) 22   3) 24   4) 32   [   ]

33. If one third of 3/4 of a number is 21. Then find the number.　　　　　　　[　　]
    1) 840　　　　　　2) 630　　　　　　3) 63　　　　　　4) 84

Ratio & Proportion

34. 1000 men have provisions for 15 days. If 200 more men join them, for how many days will the provisions last now?　　　　　　[　　]
    1) 10.5　　　　　2) 11.5　　　　　3) 12.5　　　　　4) 10.4

35. An amount of money is to be divided between P, Q and R in the ratio of 3:7:12. If the difference between the shares of P and Q is Rs. 2400, what will be the difference between Q and R's share?
    1) Rs. 2800　　　2) Rs. 3000　　　3) Rs. 2400　　　4) Rs.3200　[　　]

36. Rs. 160 contained in a box consists of one rupee, 50paise and 25 paise coins in the ratio 4:5:6. What is the number of 25 paise coins　　　　　　[　　]
    1) 100　　　　　2) 115　　　　　3) 120　　　　　4) 110

LCM & HCF

37. The least square number which divides 8, 12 and 18 is　　　　　　[　　]
    1) 100　　　　　2) 121　　　　　3) 64　　　　　4) 144

38. Four bells begin to toll together respectively at the intervals of 8, 10, 12 and 16 seconds. After how many seconds will they toll together again?　　　　　　[　　]
    1) 246 seconds　　2) 242 seconds　　3) 240 seconds　　4) 243

39. The product of two digits number is 210 and their HCF is 12. The numbers are :　[　　]
    1) (36, 60)　　　2) (12, 180)　　　3) (96, 25)　　　4) (72, 30)

Percentages

40. If the price has fallen by 10% then what percent of its consumption be increased so that the expenditure may be the same as before ?　　　　　　[　　]

    1) 11%　　　　2) 10%　　　　3) $11\frac{1}{9}\%$　　　　4) $9\frac{1}{11}\%$

41. If y exceeds x by 25%, then x is less then y by　　　　　　[　　]

    1) 16%　　　2) $16\frac{1}{3}\%$　　　3) 20%　　　4) $16\frac{3}{5}\%$

42. The salary of Mr. X is 30% more then that Mr. Y. Find what percent of Mr. Y's salary is less then Mr. X's　　　　　　[　　]

    1) 30%　　　2) $25\frac{1}{13}\%$　　　3) $23\frac{1}{13}\%$　　　4) $22\frac{1}{13}\%$

Profit & Loss

43. A watch was sold at a loss of 10%. If it was sold for Rs. 140 more, there would have been again of 4%. What is the cost price.　　　　　　[　　]
    1) Rs. 1000　　　2) Rs. 1140　　　3) Rs. 860　　　4) Rs. 760

44. The list price of an article is Rs. 65. A customer pays Rs. 56.16 for it. He was given two successive discounts, one of them being 10%. The other discount is ?　　　　　　[　　]
    1) 3%　　　　2) 4%　　　　3) 5%　　　　4) 6%

45. A single discount equivalent to the discount series of 20%, 10% and 5% is ?   [   ]
    1) 25%   2) 30%   3) 31.6%   4) 33.5%

46. A man selles a horse for Rs. 800 and loses something. If he had sold it for Rs. 980, his gain would
    have been double the former loss. Find the cost price of the horse ?   [   ]
    1) Rs. 900   2) Rs. 875   3) Rs.850   4) Rs. 860

47. By selling a house at 60,000 a person got a loss of 10%. In order to get a profit of 20% he should
    sell it for   [   ]
    1) Rs 70,000   2) Rs 80,000   3) Rs 90,000   4) Rs 1,00,000

Mensuration

48. If a sphere, a cylinder and a cone are of the same radius and same height, then the ratio of their
    curved surface areas is   [   ]

    1) $1 : 1 : 2$ 2) $4 : 4 : \sqrt{5}$ 3) $2 : \sqrt{3} : 1$ 4) $2 : 1 : 1$

49. The volume of a sphere of radius 2.1 cm is   [   ]
    1) 28.808 cm^3 2) 38.808cm^3 3) 36.8cm^3 4) 39.8 cm^3

50. The total surface area of a hemisphere of radius 3.5cm is   [   ]
    1) 109.5 cm^2 2) 114.6 cm^2 3) 115.5 cm^2 4) 117.52 cm^2