CLASS - VII

1. If a, a + 2, a + 4 are prime numbers, then the no. of possible solutions for 'a' is
   1) One 2) Two 3) Three 4) more than 3

2. The least 5 digit number which is divisible by 666is
   1) 10566 2) 10656 3) 11656 4) 11566

3. $(4^{61} + 4^{62} + 4^{63} + 4^{64})$ is divisible by
   1) 3 2) 11 3) 13 4) 17

4. If n is a natural number $n(n^2 - 1)$ is always divisible by
   1) 3 2) 4 3) 5 4) 7

5. $\frac{1}{1.2} + \frac{1}{2.3} + \frac{1}{3.4} + \frac{1}{4.5} + \frac{1}{5.6} + \ldots\ldots\ldots + \frac{1}{12.13} = ?$
   1) $\frac{11}{13}$ 2) $\frac{12}{13}$ 3) 1 4) $\frac{13}{12}$

6. What is the value of x in $1 + \cfrac{1}{1 + \cfrac{1}{1 + \cfrac{1}{x}}} = \frac{11}{7}$
   1) 2 2) 3 3) $\frac{1}{2}$ 4) $\frac{7}{11}$

7. $(5.\overline{88} - 4.\overline{58}) - (0.\overline{64} + 0.\overline{36}) = ?$
   1) $0.\overline{29}$ 2) $0.\overline{19}$ 3) $0.\overline{39}$ 4) $1.\overline{09}$

8. HCF and LCM of two numbers are 7 and 140. If the nos. are between 20 and 45. What is the sum of the numbers.
   1) 49 2) 56 3) 63 4) 70

9. HCF of two numbers is 12 and their difference is 12. The numbers are
   1) 12, 84 2) 84, 96 3) 64, 76 4) 100, 112

10. The LCM of 3 different numbers is 150. Which of the following can not be their HCF
    1) 15 2) 25 3) 50 4) 55

11. The present age of Ramu's father is three times that of Ramu, After five years the sum of their ages whould be 70years. Find the present ages of Ramu and his father

1) 15, 45 2) 16, 48 3) 17, 51 4) 13, 39

12. Length of a rectangle is 8m less than twice its breadth. If its perimeter is 56m then its length and breadth respectively are

1) 13m, 15m 2) 12m 16m 3) 16m, 12m 4) 15m, 13m

13. If $l \perp m$ and $m \perp n$ then the relation between l and n is

1) $l \parallel n$ 2) $l \perp n$

3) $l \not\parallel n$ 4) n is transversal to l and m

14. If a transversal is drawn to two parallel lines then the pair of interior angles on the same side of the transversal are

1) Complementary 2) Supplementary 3)Grater than 90^0 and less than 180^0

4) Acute angles

15. In $\triangle ABC$, G is centroid and AD = 6cm is one median, then AG =

1) 2cm 2) 4cm 3) 2.5cm 4) 3cm

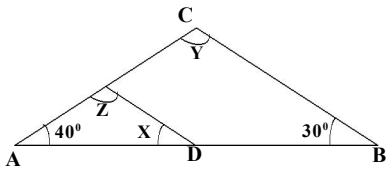
16. In ΔABC if $\angle A = 3\angle B$ *and* $\angle C = 2\angle B$, then the measure of $\angle C$ =

1) 30^0 2) 60^0 3) 90^0 4) 120^0

17. In the figure $DE \parallel BC$. If $\angle B = 30^0$ and $\angle A = 40^0$ find $x + y + z =$

1) 230^0 2) 240^0

3) 250^0 4) 260^0



18. The angles of a triangle are in the ratio 1: 2: 3, then the ratio of their opposite sides is :

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

19. If 40% of a number is 800, then the number is

1) 1000 2) 1600 3) 2000 4) 2500

20. Ramesh sold a DVD Player for Rs.2800 at a gain of 12% . For how much did he buy it?

1) 2000 2) 2500 3) 2250 4) 1800

21. A shop keeper marks his goods 25% above the cost price and allows a discount of 12%. What is the gain percentage?

1) 20% 2) 25% 3) 15% 4) 10%

22. At what rate of simple interest per annum will the principle triples in 16years.

1) 10% 2) 15% 3) 25% 4) $12\frac{1}{2}\%$

23. The cost price of 12 mangoes is equal to the selling price of 15 mangoes. What is the loss%

1) 15% 2) 20% 3) 25% 4) $12\frac{1}{2}\%$

24. LCM of $\frac{2}{3}, \frac{4}{5} and \frac{6}{11}$ is

1) $\frac{1}{12}$ 2) 12 3) $\frac{1}{24}$ 4) 24

25. If $(3x-8):(2x+1)$ is the duplicate ratio of 2:3 then x =

1) 4 2) 6 3) 2 4) 8

26. Which of the following statements is true.

1) 3% = 0.03 2) $12 \div \frac{1}{2} = 6$

3) $\frac{1}{7} < \frac{1}{9}$ 4) 0.2 x 0.3 = 0.6

27. No. of rectangles with integer sides and with perimeter 20cm is

1) 4 2) 8 3) 5 4) 9

28. $a \odot b = 3a + 2b - ab$ where a , b are 2 numbers.If $3 \odot x = 4,$ what is the value of x

1) 11 2) 12 3) 13 4) 5

29. Digital root of $2x2\,is\,3$ then x =

1) -1 2) 8 3) 4 4) 6

30. Sum of 1 + 3 + 5 + ...+ 29 is

1) 225 2) 900 3) 841 4) 941

31. If $2x+3y=78$ *and* $3x+2y=72$ *then* $x+y=$?

1) 150 2) 50 3) 30 4) 60

32. The ratio of the diagnoal of a cube to its side is

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

33. Sum of 4 consecutive even numbers is 228. What is the 3rd number

1) 58 2) 60 3) 54 4) 64

34. Multiplicative identity of $-\frac{1}{2}$

1) $\frac{1}{2}$ 2) $-\frac{1}{2}$ 3) 2 4) -2

35. If the height of an equilateral triangle is 12cm. Its area in sq.cm

1) 48 2) $48\sqrt{3}$ 3) $48\sqrt{2}$ 4) $24\sqrt{3}$

36. $(2016^2-2015^2)+4031=$

1) 8062 2) 0 3) 4031 4) 4162

37. In a sector $l+2r=36cms$ r = 7cms, What is the area of sector in sq.cm

1) 154 2) 72 3) 77 4) 66

38. What is the digit in the unit place in the expantion of 42^{42}

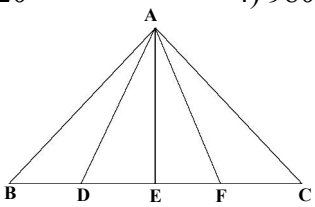
1) 2 2) 4 3) 6 4) 8

39. Dividing Rs.3120 among A,B,C in the ratio $\frac{1}{2}:\frac{1}{3}:\frac{1}{4}$, the amount that B gets is

1) 1440 2) 960 3) 720 4) 980

40. Total no. of triangles in the figure

1) 8 2) 9
3) 10 4) 16



41. The famous mathematician who genarated "Demlo Numbers" is

1) Dr.Kaprekar 2) Euclid 3) Ramanujan 4) Dr.C.R.Rao

42. Kaperkar's constant is

1) 6274 2) 6174 3) 6471 4) 6124

43. Mean of 1.2 , $\frac{1}{2}$, 0.15, $\frac{1}{4}$, 3.2 is

1) 1.6 2) 1.06 3) 0.5 4) 1.05

44. Angle between hours hand and minutes hand of a clock at 2 -30 PM

1) 105^0 2) 115^0 3) 110^0 4) $112\frac{1}{2}^0$

45. The first three triangular numbers are

1) (1,2,3) 2) (1,3,5) 3) (3,5,7) 4) (7,11,13)

46. A pie chart consists of

1) Circles 2) Triangles 3) Rectangles 4) Sectors

47. A well known Indian statistician famous for his theory of Estimation is

1) Kaprekar 2) Dr.C.R.Rao 3) Euclid 4) Pytghogras

48. Mode of the following data 13, 23, 23, 14, 14, 14, 15, 13, 13, 15, 12 is

1) 13 2) 14 3) Both 1 and 2 4) 23

49. Range of the data 10, 6, 8, 15, 2, 36, 62

1) 52 2) 60 3) 56 4) 64

50. The classess in a frequency distribution table are 0-9, 10-19, 20-29..... What is the mid value of the class 20-29?

1) 25.5 2) 24 3) 24.5 4) 19.5

51. The most dependable average among Mean, Median and Mode

1) Mean 2) Median 3) Mode 4) Both 1&2

52. HCF of 1.2 and 0.12 is

1) 1 2) 1.2 3) 0.12 4) Cannot be found

53. Median of $\frac{3}{2}$, $\frac{3}{4}$, $\frac{2}{3}$, $\frac{3}{5}$, $\frac{4}{5}$ *and* 1 is

1) 0.75 2) 0.8 3) 0.7 4) 0.775

54. Mean of 10 observations is 25. While caliculating Mean one observation is by mistake taken as 35 instead of 45. What is the actual Mean

1) 26 2) 24 3) 25.5 4) 24.5

55. No. of diagonals that can be drawn in an octogan

1) 8 2) 12 3) 27 4) 20

56. If $\frac{A}{3} = \frac{B}{4} = \frac{C}{5}$ then A+ B - C =

1) 7 2) 9 3) 1 4) 2

57. A rational number between $\frac{2}{3}$ *and* $\frac{3}{4}$ is

1) $\frac{17}{24}$ 2) $\frac{15}{24}$ 3) $\frac{19}{24}$ 4) $\frac{15}{12}$

58. If $i = \sqrt{-1}$ then the value of i^{62} is

1) 0 2) 1 3) -1 4) 62

59. Degree of the term '2' in a polynomial is

1) 1 2) 0 3) 2 4) Not defined

60. Measures of x and y in the figure

1) $x = 70^0, y = 60^0$ 2) $x = 60^0, y = 70^0$

3) $x = 50^0, y = 80^0$ 4) $x = 80^0, y = 50^0$