VII CLASS

1. The value of the Roman number MDCLXVI in Hindu Arabic System is ....
   1) 1664 2) 1656 3) 1666 4) 1566

2. If x : y = 3 : 2 then (2x + 3y) : (3x + 2y) = ...
   1) 12 : 19 2) 12 : 20 3) 3 : 4 4) 12 : 13

3. If the mean of 8, 9, 11, p, 16 and 21 is p, then p = ...
   1) 11 2) 13 3) 14 4) 15

4. If each side of a cube is doubled, how many times the surface area will increase.
   1) 24 2) 3 3) 4 4) 6

5. If a polygon of n - sides has 35 diagonals, then ' n ' = ...
   1) 10 2) 11 3) 12 4) 9

6. Sum of the first 50 even natural numbers is .....
   1) 2500 2) 2550 3) 2600 4) 2650

7. In a test a student has to secure 48% marks to pass. If Ravi gets 283 marks and failed by 5 marks, the maximum mark of the test is .....
   1) 400 2) 500 3) 600 4) 1000

8. The Median of $15\frac{2}{3}$, 15.03, 15, $15\frac{1}{3}$ and 15.3 is
   1) 15 2) 15.03 3) $15\frac{1}{3}$ 4) 15.3

9. Salary of A is 50% more than that of B. How much percent is B's below A's.
   1) 25% 2) 35% 3) 34% 4) $33\frac{1}{3}\%$

10. If $x+\frac{1}{x}=\frac{17}{4}$ the value of $x-\frac{1}{x}$ = ...
   1) $2\frac{3}{4}$ 2) $3\frac{1}{4}$ 3) $3\frac{3}{4}$ 4) 0

11. a, b, c, d are positive integers. If a + b + c = 40, b + c + d = 35, c + d+ a = 30 and d + a + b = 45, then a + b + c + d = ...
   1) 45 2) 55 3) 50 4) 40

12. $2^3 + 3^3$ is divisible by .....

1) 2 2) 3 3) 5 4) 6

13. If you are given 4 matchsticks of size 1cm, 2cms, 3 cms and 4cms how many triangles you can form using three sticks at a time.

1) 0 2) 1 3) 2 4) 3

14. The units digit in the simplification of 2^{151}.

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

15. In the number 5a 3b 45, 'a' is the largest digit and 'b' is the third whole number then the difference between the place value of 'b' and the face value of 'a' = ...

1) 9800 2) 181 3) 197 4) 191

16. If $a + \frac{1}{b + \frac{1}{c}} = \frac{27}{4}$ then $(a + b + c)^2$ = ...

1) 81 2) 100 3) 121 4) 144

17. A rational number between $\frac{2}{3}$ and $\frac{3}{5}$ is .....

1) $\frac{13}{45}$ 2) $\frac{23}{45}$ 3) $\frac{19}{30}$ 4) $\frac{19}{45}$

18. No. of divisors of $2^3 \times 3^5$ = ...

1) 15 2) 16 3) 18 4) 24

19. The Mean of a data is 9. If each observation of the data is multiplied by 3 and added one then the new Mean is .....

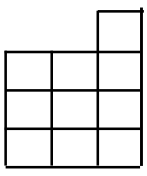
1) 9 2) 18 3) 27 4) 28

20. $2^{4n} - 1$ is always divisible by .....

1) 2 2) 17 3) 15 4) Both 2 and 3

21. How many squares are there in the figure in total.

1) 16 2) 14
3) 15 4) 13



22. Sum of the reciprocals of all prime divisors of 30.

1) $\frac{5}{6}$ 2) $2\frac{1}{15}$ 3) $1\frac{1}{30}$ 4) $\frac{8}{15}$

23. In a division dividend is 'p', divisor is 'q', quotient is 'r' and remainder is 's'. Then which of the following is true.

1) p = q r + s 2) p = q r - s 3) p = q r s 4) p = q s + r

24. Logarithms and decimal fractions were introduced by .....

1) Aryabhtta 2) C.R.Rao 3) John Napier 4) Archimedis

25. Given that A : B = 2 : 3 and C : B = 5 : 4. If Rs. 700/- is shared among A, B and C. What amount would A get.

1) Rs. 120 2) Rs. 160 3) Rs. 240 4). Rs. 300

26. 12 men can complete a work in 15 days. In how many days 10 men can do the same work.

1) 12 2) 13 3) 18 4) 9

27. If the cost price of 12 mangoes is equal to the selling price of 15 mangoes, then the percentage of loss is .....

1) 20% 2) 25% 3) $25\frac{1}{2}\%$ 4) $33\frac{1}{3}\%$

28. A pie chart consists of .....

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

29. The date of 112^{th} day in any leap year.

1) 22^{nd} April 2) 21^{st} April 3) 20^{th} April 4) 21^{st} May

30. The book " The Theory of Estimation" was written by .....

1) Aryabhtta 2) C.R.Rao 3) John Napier 4) Archimedis

31. Kaprekar constant is .....

1) 6174 2) 6714 3) 7164 4) 6176

32. The value of $0.\bar{2} + 0.\bar{3} + 0.\bar{4}$ = ...

1) 0.9 2) 9 3) 1 4) 2

33. If the ratio of diameters of two circles is 3 : 4 ; then the ratio of their circumferences is

1) 9 : 16 2) 27 : 64 3) 3 : 4 4) 16 : 9

34. Observe the pattern of circles in rows and find the total number of circles in the first 50 rows.

1) 5000 2) 10,000

3) 2500 4) 5500

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o o o
o o o o o
o o o o o o o
.....
.....

35. The period of Aryabhatta is .....

1) 475 - 550 AD 2) 550 - 475 BC 3) 475 - 555 AD 4) 1550 - 1617AD

36. The equal sides of an isosceles triangle are each 7 cms long and the length of its third side is an integer. How many such triangles can be constructed.

1) 11 2) 12 3) 13 4) 14

37. Mode of the data 12, 15, 12, 11, 15, 12, 15 and 10 is .....

1) 11 2) 12 3) 15 4) Both 2 and 3

38. The difference between two positive integers is 12. If the smaller of the two is $\frac{3}{5}$ of the larger, the smaller number is .....

1) 30 2) 6 3) 15 4) 18

39. $x^{-1} = 4^{-1} + 5^{-1}$ then 'x' = ...

1) $\frac{1}{9}$ 2) $\frac{9}{20}$ 3) $\frac{20}{9}$ 4) $\frac{9}{11}$

40. If a, b, c are in continued proportion then c = ...

1) $\frac{b}{a}$ (2) $\frac{a}{b}$ (3) $\frac{b^2}{a}$ (4) $\frac{a^2}{b}$

41. At what rate per annum, will a principle 'p' triples in 16 years on simple interest

1) 10% 2) $12\frac{1}{2}\%$ 3) 12% 4) $8\frac{2}{3}\%$

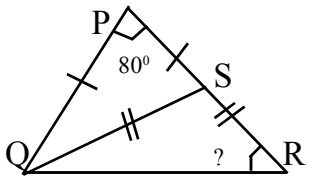
42. $(1111)^2$ = ?

1) 1234321 2) 1234121 3) 1234211 4) 1243321

43. In the diagram given $\overline{PQ} = \overline{PS}$ and $\overline{QS} = \overline{SR}$ and $\angle P = 80^0$. $\angle QRS$ = ?

1) 45^0 2) 25^0

3) 35^0 4) 30^0



44. At a particular time of a day a tree of height 5 mts casts a shadow of 8 mts long. What will be the height of a pole if its shadow is 16 mts long at the same time.

1) 10 mts. 2) 6 mts. 3) 8 mts. 4) 12.8 mts.

45. H.C.F. of 1.08, 0.36, 0.9 is .....

1) $\frac{8}{9}$ 2) $\frac{9}{10}$ 3) 0.09 4) 0.009

46. The lateral surface area of a cube is 64 cm^2. The length of its space diagonal is ..

1) 4 cm 2) $6\sqrt{3}$ cm 3) $4\sqrt{3}$ cm 4) $4\sqrt{2}$ cm

47. A shop keeper marks his goods 25% above the cost price and allows 12% discount what is his gain percentage.

1) 10% 2) 12% 3) 15% 4) 11%

48. The Mean of first 5 odd primes.

1) 5.8 2) 7.8 3) 7.5 4) 5.5

49. If 4 a b 5 is a four digit number divisible by 55 then b - a - 1 = ?

1) 0 2) 1 3) (-1) 4) 2

50. The GCD and LCM of two numbers 'a' and 'b' are 27 and 2079 respectively. If 'a' is divided by 9, the quotient is 21. Then 'b' = ...

1) 243 2) 189 3) 297 4) 397

51. The Mean of 20 observations is 12.5. By an error one observation is registered as 15 instead of 45. What is the correct Mean.

1) 13.5 2) 12.5 3) 14 4) 14.5

52. A bag contains Rs. 220/- in the form of Re. 1, 50 Ps. and 10 Ps. coins in the ratio 3:4:5, number of 50 Ps. coins in the bag is .....

1) 120 2) 80 3) 160 4) 200

53. The area of the largest possible square inscribed in a circle of unit radius.

1) 2 2) 4 3) 2π 4) π

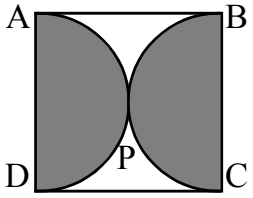
54. Some students are in the ground. Half of them are playing cricket, one fourth are playing tennis, one eigth are playing chess and the remaining 24 are taking rest. Total number of studens are ..

1)192 2) 96 3) 220 4)195

55. A man travels a certain distance at a speed of 24 kmph and returns to the original place with a speed of 36 kmph. What is his average speed.... kmph

1) 26 2) $28\frac{4}{5}$ 3) $26\frac{1}{3}$ 4) $26\frac{2}{3}$

56. ABCD is a square of side 14 cms. APD and BPC are semi - circles. The area of the part which is not shaded in square cms is ....



1) 32 2) 42
3) 22 4) 22.5

57. A seller buys a book for Rs. 165/- and sells it for Rs. 176/-. His profit percentage is

1) $6\frac{1}{3}\%$ 2) $6\frac{2}{3}\%$ 3) $8\frac{1}{3}\%$ 4) $8\frac{2}{3}\%$

58. $\frac{1}{1\times 2}+\frac{1}{2\times 3}+\frac{1}{3\times 4}+.....+\frac{1}{2017\times 2018}=.....$

1) $\frac{2017}{2018}$ 2) $\frac{2018}{2017}$ 3) 4035 4) 1

59. $(a - 1)^2 + (b - 2)^2 + (c - 3)^2 + (d - 4)^2 = 0$ then $a + b + c + d =$ .....

1) 0 2) – 10 3) 9 4) 10

60. Father of Indian Statistics.

1) Bhaskaracharya 2) P.C. Mahalanobis 3) Ramanujan 4). Arayabhatta