V9M

Virudhunagar District

Common Third Mid Term Test - 2025

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Standard 9

Time Allowed: 1.30 Hours   **MATHEMATICS**   Maximum Marks: 50

Part-A

8×1=8

Answer all the question:

1) The perimeter of an equilateral triangle is 30 cm. The area is _____.

   a) $10\sqrt{3}$ cm²   b) $12\sqrt{3}$ cm²   c) $15\sqrt{3}$ cm²   d) $25\sqrt{3}$ cm²

2) If the lateral surface area of cube is 600 cm², then the total surface area is

   _____.

   a) 150 cm²   b) 400 cm²   c) 900 cm²   d) 135 cm²

3) If the ratio of the sides of two cube are 3:4, then ratio of their surface areas will be _____.

   a) 6:8   b) 9:16   c) 27:64   d) 9:12

4) The capacity of a water tank of dimension 10m × 5m × 1.5m is _____.

   a) 75 litres   b) 750 litres   c) 7500 litres   d) 75000 litres

5) Mean of 10 observation is 48 and 7 is subtracted to each observation, then mean of new observation is _____.

   a) 48   b) 10   c) 7   d) 41

6) A particular observation which occurs maximum number of times in a given data is called its _____.

   a) Frequency   b) Range   c) Mode   d) Median

7) The algebraic sum of the deviation of a set of n values from their mean is _____.

   a) 0   b) n – 1   c) n   d) n + 1

8) The mean of the square of first n natural number is _____.

   a) 26   b) 46   c) 48   d) 52

Part-B

Answer any 6 questions. Q.NO.16 is compulsory: 6×2=12

9) Find the Total Surface Area and Lateral Surface Area of the cube, whose side is 5 cm.

10) Find the area of triangle whose sides are 10 cm, 24 cm and 26 cm.

11) The dimensions of a match box are 6 cm × 3.5 cm × 2.5 cm. Find the volume of a packet containing 12 such match boxes.

12) A cubical tank can hold 64,000 litres of water. Find the length of its side in metres.

13) The mean weight of 4 members of a family is 60 kg. Three of them have the weight 56 kg, 68 kg and 72 kg respectively. Find the weight of the fourth member.

14) For the data 11, 15, 17, x+1, 19, x–2, 3 if the mean is 14, find the value of x.

15) In a distribution, the mean and median are 66 and 64 respectively. Calculate the mode.

16) Find the median of the given data :

36, 44, 86, 31, 37, 44, 86, 35, 60, 51.

Part-C

Answer any 6 question. Q.NO.24 is compulsory: 6×5=30

17) The lengths of sides of a triangular field are 28 m, 15 m and 41 m. Calculate the area of the field. Find the cost of levelling the field at the rate of ` 20 per m².

18) The dimensions of a hall is 10 m × 9 m × 8 m. Find the cost of white washing the walls and ceiling at the rate of ` 8.50 per m².

19) The length, breadth and height of a cuboid are in the ratio 7 : 5 : 2. Its volume is 35840 cm³. Find its dimensions.

20) The following data gives the number of residents in an area based on their ages. Find the average age of the residents.

Age	0-10	10-20	20-30	30-40	40-50	50-60
No. of Residents	2	6	9	7	4	2

21) The mean of five positive integers is twice their median. If four of the integers are 3,4,6,9 and median is 6. Then find the fifth integer.

22) Find the mode of the following data.

Marks	0-10	10-20	20-30	30-40	40-50
Number of Students	22	38	46	34	20

23) The following table gives the weekly expenditure of 200 families. Find the median of the weekly expenditure.

Weekly expenditure (`)	0-1000	1000-2000	2000-3000	3000-4000	4000-5000
Number of families	28	46	54	42	30

24) A metallic cube with side 15 cm is melted and formed into a Cuboid. If the length and height of the cuboid is 25 cm and 9 cm respectively then find the breadth of the cuboid.