THENI DT

THIRD MID TERM TEST - 2025

STANDARD - IX

MATHEMATICS

24/2/25

Time: 1.30 hrs **Marks:50**

I Choose the correct answer. **7x1=7**

1. The Lateral surface area of a cube of side 12cm is
   a) $144cm^2$ b) $196cm^2$ c) $576cm^2$ d) $664cm^2$
2. If the ratio of the sides of two cubes are 2:3, then ratio of their surface areas will be
   a) 4:6 b) 4:9 c) 6:9 d) 16:36
3. The capacity of a water tank of dimensions 10m x 5m x 1.5m is
   a) 75 litres b) 750 litres c) 7500 litres d) 75000 litres
4. A particular observation which occurs maximum number of times in a given data is called its
   a) frequency b) range c) mode d) Median
5. The algebraic sum of the deviations of a set of n values from their mean is
   a) 0 b) n-1 c) n d) n+1
6. If the mean of five observations x, x+2, x+4, x+6, x+8 is 11, then the mean of first three observations is
   a) 9 b) 11 c) 13 d) 15
7. The mean of the square of first 11 natural numbers is
   a) 26 b) 46 c) 48 d) 52

II Answer any five questions. (Question number 14 is compulsory) **5x2=10**

8. Find the area of an equilateral triangle whose perimeter is 180cm.
9. Find the TSA and LSA of a cuboid whose length breadth and height are 7.5m, 3m and 5m respectively.
10. A cube has the Total surface Area of 486 cm^2. Find its lateral surface area.
11. A cubical milk tank can hold 125000 litres of milk. Find the length of its side in metres.
12. In a week, temperature of a certain place is measured during winter are as follows 26°c, 24°c, 28°c, 31°c, 30°c, 26°c, 24°c. Find the mean temperature of the week.
13. For the following ungrouped data 10,17,16,21,13,18,12,10,19,22. Find the median.
14. Find the mode of the given data: 3.1, 3.2, 3.3, 2.1, 1.3, 3.3, 3.1

III Answer any five questions. (Question number 21 is compulsory) **5x5=25**

15. The lengths of sides of a triangular field are 28m, 15m and 41m. Calculate the area of the field, Find the cost of levelling the field at the rate of ₹20 per m^2.
16. Three identical cubes of sides 4cm are joined end to end. Find the total surface area and lateral surface area of the new resulting cuboid.
17. The dimensions of a brick are 24cm x 12cm x 8cm. How many such bricks will be required to build a wall of 20m length, 48cm breadth and 6m height?

18. The following data gives the number of residents in an area based on their age. 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

19. In a class test in Mathematics, 10 students scored 75 marks, 12 students scored 60 marks, 8 students scored 40 marks and 3 students scored 30 marks. Find the mean of their score.

20. The following are the marks scored by the students in the Summative Assessment Exam.

Class	0-10	10-20	20-30	30-40	40-50	50-60
No.of students	2	7	15	10	11	5

21. Find the mode of the following data:

Marks	0-10	10-20	20-30	30-40	40-50
No. of students	22	38	46	34	20

IV Answer the following. **1x8=8**

22. The length, breadth and height of a hall are 25m, 15m and 5m respectively. Find the cost of renovating its floor and four walls at the rate of ₹ 80 per m^2.

(OR)

23. In the class, weight of students is measured for the class records. Calculate mean weight of the class students using Direct Method (or) Assumed Mean Method (or) Step deviation method.

Weight in kg	15-25	25-35	35-45	45-55	55-65	65-75
No. of Students	4	11	19	14	0	2

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