T   XII C   Reg. No.: | 9 | 1 | 3 | 0 |

COMMON THIRD MID TERM TEST - 2024

Std - IX

MATHS

Time : 1.30 Hours   Marks: 50

I. Choose the correct answer and write the option code and the corresponding order: 4 x 1 = 4

1. If the sides of a triangle are 3cm, 4cm and 5cm then the area is

  a) $3cm^2$ b) $6cm^2$ c) $9cm^2$ d) $12cm^2$

2. The capacity of a water tank of dimensions 10m x 5m x 1.5 m is

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

3. If the ratio of the sides of two cubes are 2:3 then ratio of their surface area will be

  a) 4.6   b) 4.9   c) 6.9   d) 16.36

4. Let m be the mid point and b be the upper limit of a class in a continuous frequency distribution. The lower limit of the class is

  a) 2m-b   b) 2m + b   c) m - b   d) m - 2b

II. Answer any five question: (Q.No. 10 is compulsory)   5 x 2 = 10

5. Find the area of the triangle whose sides are 10cm, 24cm, 26 cm. 252 G

6. The dimensions of a sweet box are 22cm x 18 cm x 10 cm. How many such boxes can be packed in a centon of dimensions 1cm x 88cm x 63cm. 260 B

7. Find the volume of 9 cuboid whose dimensions are length 60m, breadth 25m height 1.5m.

8. Find the total surface area and lateral surface area of the cube whose side is 5 cm. 256

9. The arithmetic mean of 6 values of 45 and if each value is increased by 4 then find the arithmetic mean of new set of values. 276 B

10. The volume of container is $1440m^3$ the length and breadth of the container are 15m & 8m respectively. Find the height.

III. Answer any five questions: (Q.No. 16 is compulsory)   5 x 4 = 20

11. Find the Arithmetic mean of the following data:

Weight in kg	15-25	25-35	35-45	45-55	55-65	65-74
No. of students	4	11	19	14	0	2

12. The dimensins of a hall is 10m x 9m x 8m. Find the cost of white washing the walls and ceiling at the rate of Rs.8.50 per m^2 257 G

13. If the mean of the following data is 20.2 then find the value of p. 266 G

Values	10	15	20	25	30
No. of students	6	8	P	10	6

14. A metallic cube with side 15cm is melted and formed into a cuboid. If the length and height of the cuboid is 25cm and 9 cm respectively then find the breadth of the cuboid. 260 B(n

15. The length, breadth and height of a cuboid are in the ratio 7:5:2. Its volume is 35840 cm³. Find the dimensions. 259 B

16. 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 Rs.80 per m². 255 B

IV. Answer the following: 2 x 8 = 16

17. a) Construct the right triangle PQR whose perpendicular sides are 4.5cm and 6cm. Also locate its circumcentre and draw the circumcircle.   **(OR)** 174 G

   b) Construct $\triangle ABC$ is which AB = 6cm $\angle B = 65°$ AC = 7cm. Locate its incentre and draw the incircle. 179 B

18. a) Use graphical method to solve the following systems of equations

   x + y = 7, x - y = 3. 124B 2.(i)   **(OR)**

   b) Use graphical method to solve the following system of equations

   x - y = 0; y + 3 = 0 124B 2(iv)