

Ts9M

Tenkasi District Common Examinations
Common Third Mid Term Test - February 2023



21-02-2023

Time: 1.30 Hours

Standard 9
MATHEMATICS
PART - 1

Marks: 50
7x1=7

Multiple choice questions.

- 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 lateral surface area of a cube of side 12cm is
 a) 144cm^2 b) 196cm^2 c) 576cm^2 d) 664cm^2
- 3) The volume of a cuboid is 660cm^3 and the area of the base is 33cm^2 . Its height is
 a) 10cm b) 12cm c) 20cm d) 22cm
- 4) The total surface area of a cuboid with dimension $10\text{cm} \times 6\text{cm} \times 5\text{cm}$ is
 a) 280cm^2 b) 300cm^2 c) 360cm^2 d) 600cm^2
- 5) The mean of the square of first 11 natural numbers is
 a) 26 b) 46 c) 48 d) 52
- 6) 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) $m - 2b$
- 7) The mean of a, b, c, d and e is 28. If the mean of a, c and e is 24, then mean of b and d is
 a) 24 b) 36 c) 26 d) 34

PART - 2**Answer any 5 of the following:****5x2=10**

- 8) Find the volume of a cuboid whose dimensions are length = 12cm, breadth = 8cm and height = 6cm.
- 9) Find the area of an equilateral triangle whose perimeter is 180 cm.
- 10) A cube has the total surface area of 486cm^2 . Find its lateral surface area.
- 11) Find the total surface area and the lateral surface area of a cuboid whose dimensions are length = 20cm, breadth = 15cm and height = 8cm
- 12) In a week temperature of a certain place is measured during winter are as follows $26^\circ\text{C}, 24^\circ\text{C}, 28^\circ\text{C}, 31^\circ\text{C}, 30^\circ\text{C}, 26^\circ\text{C}, 24^\circ\text{C}$. 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) 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.

PART - 3**Answer the following (any 5):****5x5=25**

- 15) A farmer has a field in the shape of a rhombus. The perimeter of the field is 400m and one of its diagonals is 120m. He wants to divide the field into two equal parts to grow two different types of vegetables. Find the area of the field.

Ts9M

- 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 m^2 .
- 17) A metallic cube with side 15cm is melted and formed into a cuboid. If the length and height of the cuboid is 25cm and 9cm respectively then find the breadth of the cuboid.
- 18) 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

- 19) The Median of the following data is 24. Find the value of x.

Class Interval (CI)	0-10	10-20	20-30	30-40	40-50
Frequency (f)	6	24	x	16	9

- 20) In the class weight of students is measured for the class records. Calculate mean weight of the class students using Direct 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

PART - 4

Answer the following (any 1):

8×1=8

- 21) Three different triangular plots are available for sale in a locality. Each plot has a perimeter of 120m. The side lengths are also given.

Shape of plot	Perimeter	Length of sides
Right angled triangled	120m	30m, 40m, 50m
Accute angled triangle	120m	35m, 40m, 45m
Equilateral triangle	120m	40m, 40m, 40m

Help the buyer to decide which among these will be more spacious.

- 22) Find the mean of the following distribution using step Deviation method.

Class Interval (CI)	0-8	8-16	16-24	24-32	32-40	40-48
Frequency (f)	10	20	14	16	18	22

SIVAKUMAR M, Sri Ram Mathric HSS,
Vallam - 622803 Tenkasi Dist.