

D 52923

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Name.....

Reg. No.....

**THIRD SEMESTER B.VOC. DEGREE EXAMINATION
NOVEMBER 2023**

Common Course

A11—BASIC MATHEMATICS FOR MEDIA ARTS

Time : Two Hours and a Half

Maximum : 80 Marks

Section A (Short Answer Type)*All questions can be answered.**Each question carries 2 marks.**(Ceiling 25 marks)*

1. Define Parallelogram.
2. Which are the 3 types of triangles ?
3. Write any *two* properties of rectangle.
4. How many faces does a cube have ?
5. If 10 cm is the radius of a circle, then find the diameter of the circle.
6. What is the base area of a cone with radius 4 cm ?
7. Write 2 measures of central tendency.
8. Define standard deviation.
9. Explain median.
10. Write the formula to find surface area of a cylinder.
11. Write any *two* properties of Pyramids.
12. Write formula to find perimeter of a rectangle.
13. Write any *two* properties of right triangle.
14. How can you find perimeter of a square.
15. What is Polygon ?

Turn over

Section B (Paragraph/Problem Type)*All questions can be answered.**Each question carries 5 marks (Ceiling 35 marks)*

16. Find the radius of a circle with area $36 \pi \text{ cm}^2$.
17. Find the arithmetic mean of 1, 2, 3, 4, 5.
18. If the volume of a cube is 64 cm^3 then find the length of the side.
19. If the perimeter of an equilateral triangle is 27 then find the length of its sides.
20. Find mode from the following data :
- | | | | | |
|---|---|---|----|---|
| 1 | 2 | 3 | 4 | 5 |
| 7 | 6 | 3 | 10 | 2 |
21. Find the circumference of a circle of diameter 10 cm.
22. Prepare frequency distribution with a class interval of 5 to the data of wages rupees :
10, 15, 25, 27, 29, 20, 24, 23, 22, 12, 14, 16, 17, 18, 19, 5, 9
23. If the Perimeter of a rectangle having length 5 cm is 18, then find its breadth.

Section C (Essay Type)*Answer any two of the following questions.**Each question carries 10 marks.*

24. Find the volume and surface area of a cylinder with radius 4 cm and height 10 cm.
25. If the volume of a sphere is $\frac{4}{3} \pi$ then find its radius, diameter and surface area.
26. Find the mean deviation about mean of the first ten natural numbers.
27. Find standard deviation from the following table :

Wages	Number of persons
140–160	12
160–180	18
180–200	30
200–220	40
220–240	50

(2 × 10 = 20 marks)