



Acumen Teach
To the point

Geometry

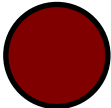
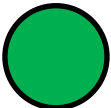
Master-box

Geometry —Measurements—Mathematical knowledge application—Data Analysis—Calculator—
Shapes— Real life and context application.



 2 hours

 38 Questions

Easy (12 Questions)	/12
Moderate(12 Questions)	/24
Difficult(12 Questions)	/36
Total Marks	/72
How did you do?   	

Section A: Easy Questions (1 mark each)



1. **Answer:** 120°

- Each interior angle of a regular hexagon = $\frac{(6-2) \times 180}{6} = 120^\circ$.

2. **Answer:** 40 cm^2

- Area = $8 \times 5 = 40 \text{ cm}^2$.

3. **Answer:** 43.96 cm

- Circumference = $2 \times 3.14 \times 7 = 43.96 \text{ cm}$.

4. **Answer:** Right-angled triangle

- A triangle with a 90° angle is right-angled.

5. **Answer:** 5200 m

- $5.2 \times 1000 = 5200 \text{ m}$.

6. **Answer:** 24 cm

- Perimeter = $4 \times 6 = 24 \text{ cm}$.

7. **Answer:** 64 cm^3

- Volume = $4^3 = 64 \text{ cm}^3$.

8. **Answer:** 72°

- Each exterior angle of a regular pentagon = $\frac{360}{5} = 72^\circ$.

9. **Answer:** 5 cm

- Radius = $\frac{10}{2} = 5 \text{ cm}$.

10. **Answer:** 30 cm^2

- Area = $\frac{1}{2} \times 10 \times 6 = 30 \text{ cm}^2$.

11. **Answer:** 360°

- Sum of interior angles of a quadrilateral = 360° .

12. **Answer:** 4.5 kg

- $4500 \div 1000 = 4.5 \text{ kg}$.

Section B: Medium Questions (2 marks each)



13. **Answer:** 84 cm^2

- $\text{Area} = 12 \times 7 = 84 \text{ cm}^2.$

14. **Answer:** 25.12 cm^2

- $\text{Area of sector} = \frac{45}{360} \times 3.14 \times 8^2 = 25.12 \text{ cm}^2.$

15. **Answer:** 32 cm^2

- $\text{Area} = \frac{1}{2} \times (10 + 6) \times 4 = 32 \text{ cm}^2.$

16. **Answer:** 942 cm^3

- $\text{Volume} = 3.14 \times 5^2 \times 12 = 942 \text{ cm}^3.$

17. **Answer:** 10 cm

- $\text{Hypotenuse} = \sqrt{6^2 + 8^2} = \sqrt{100} = 10 \text{ cm}.$

18. **Answer:** 18 sides

- $\text{Number of sides} = \frac{360}{20} = 18.$

19. **Answer:** 34 cm

- $\text{Perimeter} = 2(12 + 5) = 34 \text{ cm}.$

20. **Answer:** 5 cm

- $\text{Radius} = \frac{31.4}{2 \times 3.14} = 5 \text{ cm}.$

21. **Answer:** 150 cm^3

- $\text{Volume} = 15 \times 10 = 150 \text{ cm}^3.$

22. **Answer:** 40 cm^2

- $\text{Area} = \frac{1}{2} \times 10 \times 8 = 40 \text{ cm}^2.$

23. **Answer:** 5 cm

- $\text{Edge length} = \sqrt{\frac{150}{6}} = 5 \text{ cm}.$

24. **Answer:** 5 cm

- $\text{Radius} = \sqrt{\frac{78.5}{3.14}} = 5 \text{ cm}.$



Section C: Hard Questions (3 marks each)

25. **Answer:** 93.6 cm^2

- Area = $\frac{3\sqrt{3}}{2} \times 6^2 = 93.6 \text{ cm}^2$.

26. **Answer:** 282.6 cm^2

- Total surface area = $3.14 \times 5^2 + 3.14 \times 5 \times 13 = 282.6 \text{ cm}^2$.

27. **Answer:** 3077.2 cm^3

- Volume = $3.14 \times 7^2 \times 20 = 3077.2 \text{ cm}^3$.

28. **Answer:** 12 cm

- Other side = $\sqrt{15^2 - 9^2} = \sqrt{144} = 12 \text{ cm}$.

29. **Answer:** 57.3°

- Angle = $\frac{50 \times 360}{3.14 \times 10^2} = 57.3^\circ$.

30. **Answer:** 6 cm

- Height = $\frac{240}{8 \times 5} = 6 \text{ cm}$.

31. **Answer:** 56 cm

- Perimeter = $8 \times 7 = 56 \text{ cm}$.

32. **Answer:** 904.32 cm^3

- Volume = $\frac{4}{3} \times 3.14 \times 6^3 = 904.32 \text{ cm}^3$.

33. **Answer:** Correct

- Area = $\frac{1}{2} \times (8 + 12) \times 5 = 50 \text{ cm}^2$. The given area is incorrect.

34. **Answer:** 314 cm^2

- Radius = $\frac{62.8}{2 \times 3.14} = 10 \text{ cm}$. Area = $3.14 \times 10^2 = 314 \text{ cm}^2$.

35. **Answer:** 6 cm

- Height = $\frac{72}{12} = 6 \text{ cm}$.

36. **Answer:** 400 cm^3

- Volume = $\frac{1}{3} \times 10^2 \times 12 = 400 \text{ cm}^3$.