Mathematics — Ganita Manjari

Chapter 6 Test 1

Measuring Space: Perimeter and Area

Class IX | 2026–27

Time Allowed: 45 Minutes | Maximum Marks: 25

General Instructions

1. All 13 questions are compulsory. Choose one option in A; show working in B–D.
2. No calculators. Leave π and square roots exact unless directed otherwise.
3. Figures are schematic. Use the stated dimensions and show your working.

SECTION A

(5 questions × 1 mark = 5 marks)

1. The perimeter of a closed shape measures its:

(A) Boundary length
(B) Enclosed area
(C) Number of vertices
(D) Longest diagonal

2. Which is a unit of area?

(A) cm
(B) cm^3
(C) cm^2
(D) cm/s

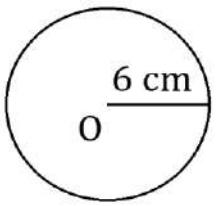
3. For every circle, π is the ratio:

(A) Radius ÷ diameter
(B) Circumference ÷ diameter
(C) Area ÷ diameter
(D) Circumference ÷ radius

4. A triangle has sides 7, 8 and 9 cm. Its semi-perimeter is:

(A) 24 cm
(B) 14 cm
(C) 10 cm
(D) 12 cm

5. Find the circumference of the labelled circle.



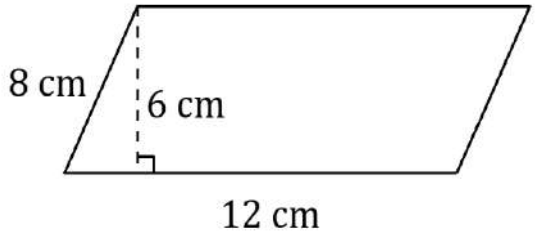
(A) 12π cm
(B) 6π cm
(C) 36π cm
(D) 3π cm

SECTION B

(4 questions × 2 marks = 8 marks)

6. A circle has circumference 44 cm. Find its radius using $\pi \approx 22/7$.

7. Find the area of the parallelogram, using its marked base and perpendicular height.



8. Use Heron's formula to find the area of a triangle with sides 13, 14 and 15 cm.

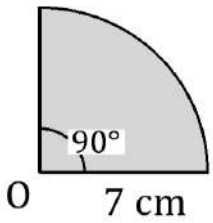
9. Two circles have circumferences in the ratio 3:5. Find the ratios of their radii and their areas.

SECTION C

(3 questions × 3 marks = 9 marks)

10. Prove that a median of a triangle divides it into two triangles of equal area.

11. The shaded region is a quadrant of radius 7 cm. Find its arc length and its complete perimeter.



12. Two rectangles measure 6 cm by 4 cm and 8 cm by 2 cm. Compare their perimeters and areas. What does this show about equal perimeters?

SECTION D

(1 application question × 3 marks = 3 marks)

13. A wheel of radius 35 cm makes 200 complete revolutions without slipping. Find the distance travelled in metres, using $\pi \approx 22/7$.