

## 7<sup>th</sup> Mensuration Test Paper – 02

1. The area of a rectangular field is 3584 meter square and its length is 64m. A boy runs around the field at the rate of 8 km/h. how long will he take to go 5 times around it.
2. The area of a square is 16200 meter square. Find the length of its diagonal.
3. A room is 8.5 m long, 6.5 m broad and 3.4 m high. It has two doors, each measuring 1.5m by 1m, and two windows, each measuring 2 m by 1m. Find the cost of painting its four walls at Rs 4.60 per sq m.
4. The length and breadth of a rectangular land are in the ratio 3 : 2. If the total cost of fencing it at Rs 7.50 per m is Rs 3000 find the length and breadth.
5. A rectangular lawn 70m by 50m has two roads, each 5m wide, running through its middle one parallel to its length and the other parallel to its breadth. Find the cost of constructing the road at Rs 20 per meter?
6. A 5m Long and 64m broad lawn has two roads, at right angles, one 2m running parallel to its breadth. Find the cost of gravelling the road at 4.60 per meter.
7. Find the length of the altitude of an equilateral triangle of side 24 cm.
8. The area of an equilateral triangle is  $16\sqrt{3}$  cm<sup>2</sup>. Find the length of each side.
9. The base of an isosceles A is 48cm and one of its equal side 30cm. Find area of triangle
10. The side of a triangle are 42 cm, 34cm, and 20cm. Calculate the area and the length of the altitude on the longest side.
11. The area of a triangle is 48 cm<sup>2</sup>. If a side and the corresponding altitude are in the ratio 3:2, find their lengths.
12. A person walks at 3 km/hr. How long will he take to go round a square ground 5 times, the area of which being 2025 m<sup>2</sup>?
13. The area of a square plot is 1764 m<sup>2</sup>. Find the length of its one side and one diagonal
14. If the area of a circle is 78.5 cm<sup>2</sup>, find its circumference. Take  $\pi = 3.14$
15. Find the circumference of the circle whose area is 16 times the area of the circle with diameter 7 cm.
16. Find the circumference of the circle whose area is equal to the sum of the areas of three circles with radius 2 cm, 3cm and 6 cm.
17. From a square cardboard, a circle of biggest area was cut out. If the area of the circle is 154 cm<sup>2</sup>, calculate the original area of the cardboard.
18. A bucket is raised from a well by means of a rope which is wound round a wheel of diameter 77 cm. Given the bucket ascends in 1 minute 28 seconds with a uniform speed of 1.1 m/sec. calculate the number of revs the wheel makes in raising the bucket.
19. A road 3.5 m wide surrounds a circular park whose circumference is 88 m. find the cost of paving road at the rate of Rs. 60 per square meter.
20. ABCD is a diameter of a circle of radius 6 cm such that AB = BC = CD. Semicircles are drawn on AB and BD as diameters, as shown in the given figure. Find the area of the shaded region.
21. In the given figure, a circle of diameter 21 cm is given. Inside this circle, two circles with diameters  $\frac{2}{3}$  and  $\frac{1}{3}$  of the diameter of the big circle have
22. The diameter of the wheel of a car is 77 cm. How many revolutions will it make to tray 121 km?

