PRISM WORLD

Std.: 10 (English) **Maths - II** **Marks: 20**

Date: **Time: 1 hrs**

Chapter: 7

Q.1 Choose the carrect alternatives. **(3)**

1) The radius of the base of right cone is 7 cm and height is 24 cm then find its slant height.
(a) 23 cm (b) 26 cm (c) 31 cm (d) 25 cm

2) The radius of the base of right cone is 7 cm and its height is 24 cm. Find its volume.
(a) 550 cm (b) 1222 cm3 (c) 750 cm (d) 1232 cm3

3) In a cylinder, if radius is halved and height is doubled then the volume will be
a. same b. doubled c. halved d. four times

Q.2 Solve the following question. (Any Two) **(4)**

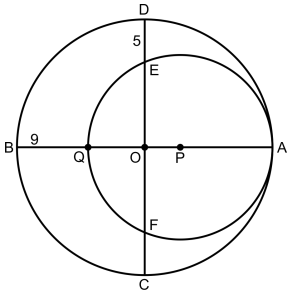
1) Prove, A = $\frac{1}{2}$Cr, for a circle having radius, circumference and area r, C and A respectively.

2) Find the length of an arc if measure of the arc is 90° and its radius is 14 cm.

3) The area of a sector of a circle of 6 cm radius is 15π sq.cm. Find the measure of the arc and length of the arc corresponding to the sector.

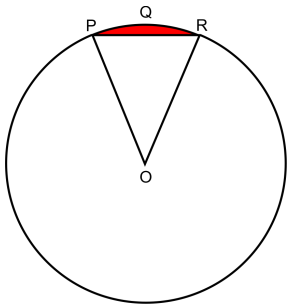
Q.3 Solve the following question. (Any Two) **(6)**

1) In the figure, two circles with centres O and P are touching internally at point A. If BQ = 9, DE = 5, find the radii of the circles.



2) In the figure, O is the centre of the circle. m(arc PQR) = 60° OP = 10 cm.
Find the area of the shaded region.

(π = 3.14, $\sqrt{3}$ = 1.73)



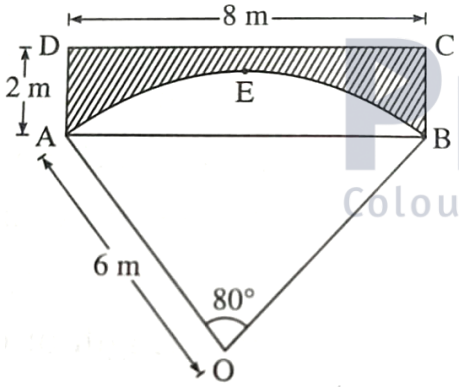
3) The dimensions of a cuboid are 44 cm, 21 cm, 12 cm. It is melted and a cone of height 24 cm is made. Find the radius of its base.

Q.4 Solve the following question. (Any One) **(4)**

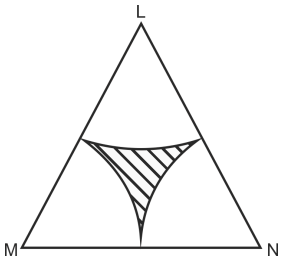
1) O-AEB is a sector of radius 6 m and measure of arc AEB = 80°.

AB = 8 m and AD = 2 m. □ABCD is a rectangle. Find the area of the shaded portion.

(π = 3.14 and sin 80° = 0.985)



2)



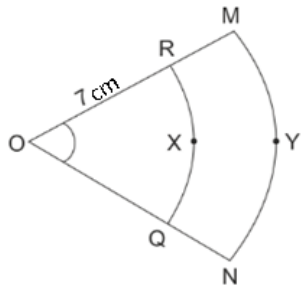
△ LMN is an equilateral triangle. LM = 14 cm. As shown in figure, three sectors are drawn with vertices as centres and radius 7 cm.
Find,

(1) A (△ LMN)

(2) Area of any one of the sectors.
(3) Total area of all the three sectors.
(4) Area of the shaded region.

Q.5 Solve the following question. (Any One) **(3)**

1)



In figure O is the centre of the sector. ∠ ROQ = ∠ MON = 60°. OR = 7 cm, and OM = 21 cm.

Find the lengths of arc RXQ and arc MYN. $\left(\pi = \frac{22}{7}\right)$.

2)

In the figure, □XLMT is a rectangle, LM = 21cm, XL = 10.5 cm.

Diameter of the smaller semicircle is half the diameter of the larger semicircle. Find the area of non-shaded region.