

MENSURATION

SECTION -3 (8X2=16m)

Answer the following

8X2=16m

21. The radius of conical tent is 7m and its height is 10m. calculate the length of canvas used in the making the tent if width of canvas is 2m.?
22. An oil drum is in the shape of a cylinder having the following dimensions. Diameter is 2m, and height is 7m. The painter charges Rs 3 per m^2 to paint the drum. Find the total charges to be paid to the painter for 10 drums.?
23. A sphere, a cylinder and a cone are of the same radius and same height. Find the ratio of their curved surface areas.?
24. A joker cap is in the form of right circular cone whose base radius is 7cm and height is 24cm. find the area of the sheet required to make 10 such caps.?
25. A heap of rice is in the form of a cone of diameter 12m, and height is 8m. find its volume. How much canvas cloth is required to cover the heap.?
26. Find the volume of the largest right circular cone that can be cut out of a cube whose edge is 7cm.?
27. A metallic sphere of radius 4.2cm. is melted and recast into the shape of a cylinder of radius 6cm. find the height of the cylinder.?
28. Metallic spheres of radius 6cm, 8cm, and 10cm respectively are melted to form a single solid sphere. Find the radius of the resulting sphere.?

SECTION -4 (5X4=20m)

Answer the following

5X4=20m

29. A medicine capsule in the shape of a cylinder with two hemi spheres stuck to each of its ends. The length of the capsule is 14mm and the width is 5mm. find its surface area.?

OR

Two cubes each of volume $64cm^3$ are joined end to end together. Find the surface area of the resulting cuboid.?

30. A solid toy is in the form of a right circular cylinder with hemi spherical shape at one end and a cone at the other end. Their common diameter is 4.2cm and the height of the cylindrical and conical portions are 12cm and 7cm respectively. Find the volume of the solid toy.?

OR

A women self help group(DWACRA) is supplied to a rectangular solid of wax with diameters 66cm, 42cm, 21cm to prepare cylindrical candles each 4.2cm in diameter and 2.8cm of height. Find the number of candles.?

31. How many spherical balls can be made out of a solid cube of lead whose edge is 44cm and each ball being 4cm in diameter.?

OR

A 20m deep well with diameter 7 m. is dug and the earth from digging is evenly spread out to form a platform 22 m. by 14 m. Find the height of the platform.?

32. A well of diameter 14 m. is dug 15 m. deep. The earth taken out of it has been spread evenly all around it in the shape of a circular ring of width 7 m. to form an embankment. Find the height of the embankment.?

OR

How many silver coins, 1.75 cm. in diameter and thickness 2 mm., need to be melted to form a cuboid of dimensions 5.5 cm. \times 10 cm. \times 3.5 cm.?

33. A solid metallic sphere of diameter 28 cm is melted and recast into a number of smaller cones, each of diameter $4\frac{2}{3}$ cm and height 3cm. Find the number of cones so formed.?

OR

A hemispherical bowl of internal radius 15 cm. contains a liquid. The liquid is to be filled into cylindrical bottles of diameter 5 cm. and height 6 cm. How many bottles are necessary to empty the bowl ?