

CLASS IX

SAMPLE PAPER

MATHS

TEST – SA 2

FULL MARKS: 20

MAX. TIME: 0.75 hrs

Section: A

(1 * 2 = 2)

1. A cone is 8.4 cm high and the radius of its base is 2.1 cm. It is melted and recast into a sphere. The radius of the sphere is :
(a) 4.2 cm (b) 2.1 cm (c) 2.4 cm (d) 1.6 cm
2. The total surface area of a cone whose radius is $\frac{r}{2}$ and slant height $2l$ is
(a) $2\pi r(l+r)$ (b) $\pi r\left(l+\frac{r}{4}\right)$ (c) $\pi r(l+r)$ (d) $2\pi rl$

Section: B

(2 * 2 = 4)

3. If the volume of a right circular cone of height 9 cm is $48\pi\text{ cm}^3$ Find the slant height of the cone?
4. The volume of a cylinder is 69300 cm^3 and its height is 50cm. Find its curved surface area.

Section: C

(3 * 2 = 6)

5. A semi-circular sheet of metal of diameter 28cm is bent to form an open conical cup. Find the capacity of the cup.
6. Rain water which falls on a flat rectangular surface of length 6 m and breadth 4 m is transferred into a cylindrical vessel of internal radius 20 cm. What will be the height of water in the cylindrical vessel if the rain fall is 1 cm. Give your answer to the nearest integer. (Take $\pi = 3.14$)

Section: D**(4 * 2 = 8)**

7. At a Ramzan Mela, a stall keeper in one of the food stalls has a large cylindrical vessel of base radius 15 cm filled up to a height of 32 cm with orange juice. The juice is filled in small cylindrical glasses of radius 3 cm up to a height of 8 cm, and sold for Rs 3 each. How much money does the stall keeper receive by selling the juice completely?
8. The radius of a sphere is increased by 10%. Prove that the volume will be increased by 33.1% approximately.