MATHEMATICS REVISION TEST – 1 (2025-26)

Time: 1 hour   Max. Marks. 20

(CIRCLES & SURFACE AREAS AND VOLUMES)

Name: .... Sec.....   No....

I. Answer the following questions $4 \times 1 = 4$

1. Draw a circle and two lines parallel to a given line such that one is a tangent and the other, a secant to the circle.
2. At any point on a circle, there can be one and only one tangent. (True/False)
3. What is the curved surface area of a cone with radius 'r' and slant height 'l' ?
4. Volume of cube is 125 cm^3 then its side is ....

II. Solve the following $4 \times 2 = 8$

1. Find the T.S.A of a right circular cylinder of radius 7 cm and height 10 cm?
2. If the volume and surface area of sphere are numerically equal then find its radius?
3. Define tangent of a circle and secant of a circle.
4. The length of the tangent from a point A at distance 5 cm from the center of the circle is 4 cm. Find the radius of the circle.

III. Answer the following questions $2 \times 4 = 8$

1. Prove that the angle between the two tangents drawn from an external point to a circle is supplementary to the angle subtended by the line segment joining the points of contact at the center.
2. A solid is in the shape of a cone standing on a hemisphere with both their radii being equal to lcm and the height of the cone is equal to its radius. Find the volume of the solid in terms of It.