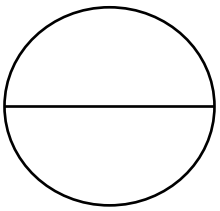
Z.P.H.SCHOOL,_____

10th MATHS SLIP TEST – 1 (2025-26)
(CIRCLES & SURFACE AREAS AND VOLUMES)



NAME : **ROLL NO :** **TIME: 1 hour**

LEVEL - 1 (RISING STAR)

I. Answer the following : 2 × 4 = 8M

1. A quadrilateral ABCD is drawn to circumscribe a circle. Prove that AB + CD = AD + BC.
2. cubes each of volume 64 cm^3 are joined end to end. Find the surface area of the resulting cuboid ?

II. Answer the following : 4 × 2 = 8M

3.A tangent PQ at a point P of a circle of radius 5 cm meets a line through the centre 'O' at a point Q so that OQ = 12 cm. Find the length of PQ.

4.From a point Q, the length of the tangent to circle is 24 cm and the distance of Q from the centre is 25 cm. Find the radius of the circle.

5.Find the T.S.A of a right circular cylinder of radius 7 cm and height 10 cm ?

6.A cylinder, a cone and a hemisphere have same base and same height. Find the ratio of their volumes.

III. Answer the following : 4 × 1 = 4M

7.The common point of a tangent to a circle and the circle is called .....…

8.A circle can have ..... parallel tangents at the most. ( )

A) 1 B) 2 C) 0 D) Infinite

9.Volume of cube is 125 cm^3 then its side is .....… ( )

A)6 cm B) 12 cm C) 10 cm D) 5 cm

5. Identify the correct relation. ( )

p. LSA of cylinder	i) $\pi r^2 h$
q. TSA of cylinder	ii) $2\pi rh$
r. Volume of cylinder	iii) $2\pi r (r + h)$

A) p → (i), q → (ii), r → (iii)
B) p → (ii), q →(iii), r → (i)
C) p → (iii), q → (ii), r → (i)
D) p → (i), q → (iii), r → (ii)

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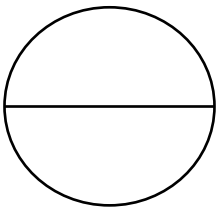

NAME : **ROLL NO :** **TIME: 1 hour**

LEVEL - 2(SHINING STAR)

I. Answer the following : 2 × 4 = 8M

1. Two tangents TP and TQ are drawn to a circle with centre 'O' from an external point T. Prove that ∠PTQ = 2 ∠OPQ

2.A solid is in the shape of a cone standing on a hemisphere with both their radii being equal to 1cm and the height of the cone is equal to its radius. Find the volume of the solid in terms of π.

II. Answer the following : 4 × 2 = 8M

3.Prove that the tangent at any point of a circle is perpendicular to the radius through the point of a contact.

4.Define tangent of a circle and secant of a circle

5.Find the T.S.A of a right circular cylinder of radius 7 cm and height 10 cm ?

6.A cylinder, a cone and a hemisphere have same base and same height. Find the ratio of their volumes.

III. Answer the following : 4 × 1 = 4M

7.The common point of a tangent to a circle and the circle is called .....…

8.A circle can have ..... parallel tangents at the most. ( )

A) 1 B) 2 C) 0 D) Infinite

9.Volume of cube is 125 cm^3 then its side is .....… ( )

A)6 cm B) 12 cm C) 10 cm D) 5 cm

5. Identify the correct relation. ( )

p. LSA of cylinder	i) $\pi r^2 h$
q. TSA of cylinder	ii) $2\pi rh$
r. Volume of cylinder	iii) $2\pi r (r + h)$

A) p → (i), q → (ii), r → (iii)
B) p → (ii), q → (iii), r → (i)
C) p → (iii), q → (ii), r → (i)
D) p → (i), q → (iii), r → (ii)

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