

**SECTION A 1 Mark each**

- Q1. The common point of a tangent to a circle with the circle is called \_\_\_\_\_.
- Q2. The tangent to a circle at any point is perpendicular to the \_\_\_\_\_.
- Q3. TP and TQ are the to tangents to a circle with centre O so that  $\angle POQ = 130^\circ$ , then find  $\angle PTQ$
- Q4. From a point Q, the length of the tangent to a circle is 40 cm and the distance of Q from the centre is 41cm. Find radius of the circle.
- Q5. Prove tangents at the end points of a diameter are parallel to each other.

**SECTION A 2Mark each**

- Q6. Prove that parallelogram circumscribing a circle is a rhombus.
- Q7. Prove that in two concentric circles, the chord of the bigger circle, which touches the smaller circle, is bisected at the point of contact.
- Q8.  $\Delta PQR$  circumscribes a circle of radius r such that  $\angle Q = 90^\circ$ ,  $PQ = 3\text{cm}$  and  $QR = 4\text{cm}$ . Find r

**SECTION A 3 Mark each**

- Q9. Prove that opposite sides of a quadrilateral circumscribing a circle subtend supplementary angles at the centre of the circle.

**SECTION A 6 Mark each**

- Q10. A triangle PQR is drawn to circumscribe a circle of radius 4cm. The circle touches QR at D such that  $QD = 6\text{cm}$  and  $RD = 8\text{cm}$ . Find PQ and PR.