

Model Question Paper

Practical Geometry - Part I

10th Standard

Maths

Reg.No. :

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I. Answer all the questions.

II. Use blue pen only.

III. Question number 15 is compulsory.

Time : 01:00:00 Hrs

Total Marks : 150

16 x 10 = 160

Part-A

- 1) Draw a circle of radius 3.2 cm. Take a point P on this circle and draw a tangent at P.
(using the centre)
- 2) Draw a circle of radius 3.2 cm. At a point P on it, draw a tangent to the circle using the tangent-chord theorem.
- 3) Draw a circle of radius 3 cm. From an external point 7 cm away from its centre, construct the pair of tangents to the circle and measure their lengths.
- 4) Draw a circle of radius 4.2 cm, and take any point on the circle. Draw the tangent at that point using the centre.
- 5) Draw a circle of radius 4.8 cm. Take a point on the circle. Draw the tangent at that point using the tangent-chord theorem.
- 6) Draw a circle of diameter 10 cm. From a point P, 13 cm away from its centre, draw the two tangents PA and PB to the circle, and measure their lengths.
- 7) Draw the two tangents from a point which is 10 cm away from the centre of a circle of radius 6 cm. Also, measure the lengths of the tangents.
- 8) Take a point which is 9 cm away from the centre of a circle of radius 3 cm, and draw the two tangents to the circle from that point.
- 9) Construct a $\triangle ABC$ such that $AB = 6$ cm, $\angle C = 40^\circ$ and the altitude from C to AB is of length 4.2 cm.
- 10) Construct a $\triangle ABC$ in which $BC = 5.5$ cm, $\angle A = 60^\circ$ and the median AM from the vertex A is 4.5 cm.
- 11) Construct a $\triangle ABC$, in which $BC = 4.5$ cm, $\angle A = 40^\circ$ and the median AM from A to BC is 4.7 cm. Find the length of the altitude from A to BC.
- 12) Construct a segment of a circle on a given line segment $AB = 5.2$ cm containing an angle 48° .
- 13) Construct a $\triangle PQR$ in which the base $PQ = 6$ cm, $\angle R = 60^\circ$ and the altitude from R to PQ is 4 cm.
- 14) Construct a $\triangle PQR$ such that $PQ = 4$ cm, $\angle R = 25^\circ$ and the altitude from R to PQ is 4.5 cm.
- 15) a) Construct a $\triangle ABC$ such that $BC = 5$ cm, $\angle A = 45^\circ$ and the median from A to BC is 4 cm.
(OR)
b) Construct a $\triangle ABC$ in which the base $BC = 5$ cm, $\angle BAC = 40^\circ$ and the median from A to BC is 6 cm. Also, measure the length of the altitude from A.
