

Answer any **five (5)** questions from the followings.

5 x 20 = 100 Marks

1. (a) Draw the following lines of length 5 cm.

- (i) Centre line
- (ii) Construction line
- (iii) Hidden line
- (iv) Hatch line for metallic section
- (v) Object line

(b) Draw the following angles with the help of your set-square only.

15°, 45°, 75°, 120°, 135° 10+10 = 20 Marks

2. (a) Write in single stroke vertical and normal style, the following letters using 30 mm height.

A to Z and numeric 0, 1 to 9

(b) Draw a regular pentagon of side 20mm.

(c) Draw a regular hexagon of side 20mm. 10+5+5 = 20 Marks

3. (a) Draw an ellipse whose major axis AB and minor axis CD are 100 cm and 70 cm long respectively.

(b) Draw a parabola whose focus at 50 mm away from the directrix. 10+10 = 20 Marks

4. (a) A cone of base 25 mm radius rests on a horizontal plane such that its axis is perpendicular to HP. Draw its top view and front view.

(b) Draw a diagonal scale of R.F. 1:2.5 showing centimeters and millimeters and long enough to measure up to 20 centimeters. Show the distance 13.4 cm on this scale. 10+10 = 20 Marks

5. A cylinder diameter of base 50 mm and height 70 mm is resting on the H.P. such that the axis of the cylinder is inclined to H.P. by 60° and the axis is parallel to the V.P. Draw its projections.

20 Marks

6. A cube of 50 mm long edges is so placed on HP on one corner that a body diagonal is parallel to HP and perpendicular to VP Draw its projections. 20 Marks