#### C-23-EC-107

# BOARD DIPLOMA EXAMINATIONS MODEL QUESTION PAPER DECE – I-YEAR

## **EC-107: ENGINEERING DRAWING**

Time: 3 hours Total Marks: 60

Instructions: I. All the dimensions are in mm

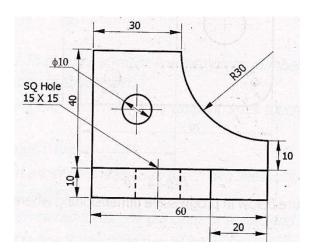
- ii. Use first angle projections only
- iii. Due weightage will be given for the dimensioning and neatness

PART – A 05 x 04=20

- i. Answer all the questions
- ii. Each question carries FIVE marks
- 1. Write the following in single stroke capital vertical lettering of size 10mm

#### ORTHOGRAPHIC PROJECTIONS

2. Redraw the given fig. and dimension it according to SP-46:1988. Assume suitable scale



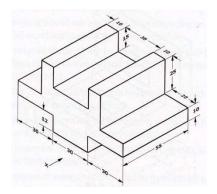
- 3. Draw internal common tangents to two unequal circles of radii 26mm and 20mm. The distance between the circles is 75mm.
- 4. Draw the projections of a point A lying on HP and 25mm in front of V.P.

PART – B 10 X 04 = 40

#### i. Answer any FOUR questions

### ii. Each question carries TEN marks

- 5. Draw the involute of a circle of diameter 30 mm and also draw a tangent to the curve at a distance of 60 mm from the centre of the circle.
- 6. A right circular cone of height 80 mm and base radius 60 mm is resting in the H.P. on one of its generators and its axis is parallel to V.P. Draw the projections of the solid.
- 7. A cylinder with base 40mm diameter and 50mm long rests on a point of its base on HP such that the axis makes an angle of 30° with HP. Draw the projections of the cylinder.
- 8. A regular hexagonal prism of height 80 mm and base side 40 mm is resting in the H.P. on its base. It is cut by an auxiliary inclined plane of 60° inclination passing through the axis at a distance of 30 mm from the top base. Draw the sectional views of the solid and the true section.
- 9. Draw the front view, top view and left side view of the object shown in the fig.



10.Draw the front view, top view and left side view of the object shown in the fig.

