

**I B. Tech I Semester Supplementary Examinations, April - 2022**  
**ENGINEERING DRAWING**

(Com. to EEE, ECE, EIE, Bio-Tech, E Com E, Agri E)

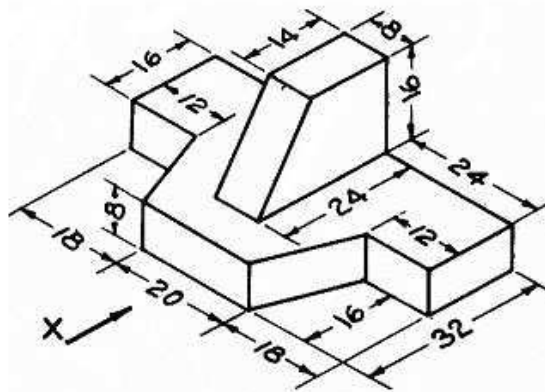
Time: 3 hours

Max. Marks: 70

- Note: 1. Question Paper consists of two parts (**Part-A** and **Part-B**)  
 2. Answering the questions in **Part-A** is Compulsory  
 3. Answer any **THREE** Questions from **Part-B**

**PART -A**

1. a) Construct a forward reading vernier scale to read distance correct to decametre (10M)  
 on a map in which the actual distances are reduced in the ratio of 1:40,000. The scale should be long enough to measure upto 5 km. Mark on the scale a length of 2.59 km.
- b) Draw the Front View, Top view & Both side views of the figures shown below. (12M)  
 All dimensions are in mm.



**PART -B**

2. a) Construct an ellipse by rectangle method when its major and minor axes equal to 120 mm and 80 mm respectively. Draw a normal and a Tangent to the curve at a point on it, 30mm from the minor axis. (10M)
- b) Draw a regular hexagon of side 30mm. (6M)
3. a) Find the horizontal distance between two points A and B which are on HP Point A is 30mm in front of VP, while B is 45mm behind VP. The line joining their top views makes an angle of  $45^\circ$  with xy. (6M)
- b) Two pegs fixed on a wall are 5 m apart. The distance between the pegs measured parallel to the floor is 3.5 m. If one peg is 1.5 m above the floor, find the height of the second peg and the inclination of the line joining the two pegs, with the floor. (6M)
- c) Draw the projections of a 60mm long straight line Perpendicular to the HP, in the VP and its one end in the HP. (4M)

4. A line AB 120 mm long is inclined at  $45^{\circ}$  to the HP and  $30^{\circ}$  to the VP. Its midpoint C is in VP and 25 mm above HP. Draw the projections of the line when end A is in the third quadrant, and B is in the first quadrant. (16M)
5. Draw the projections of a circle of 60 mm diameter resting in HP on a point A on the circumference, its plane is inclined  $45^{\circ}$  to HP and  
 (a) the op view of the diameter AB making  $30^{\circ}$  angle with VP.  
 (b) the diameter AB making  $30^{\circ}$  angle with VP. (16M)
6. a) A triangular prism of base 40 mm and height 60 mm is resting on HP on one of its rectangular faces with the axis parallel to the VP. Draw its projections. (10M)
- b) A cube 50 mm long edges is resting on its HP with its vertical faces inclined to VP. Draw its projections. (6M)
7. Two views of a casting are shown in figure. Draw isometric projection. (16M)

