

CAD/CAM

(Common to ME & MCT)

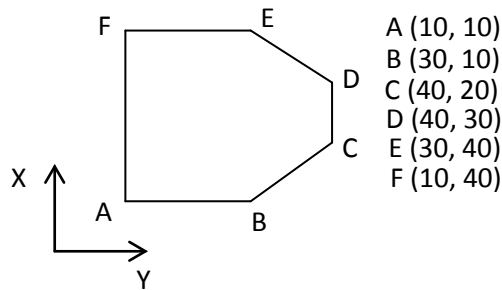
Time: 3 hours

Max. Marks: 70

Answer any FIVE questions
All questions carry equal marks

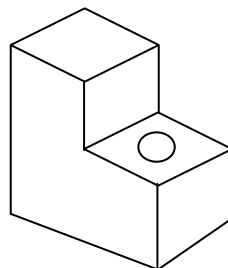
- 1 (a) Discuss the role of CAD & CAM in advanced manufacturing industry. Write all the features, benefits and objectives of a good CAD-CAM system?
(b) Draw the block diagram to represent various components in a CAD-CAM system.

- 2 (a) With a schematic diagram, explain the principle of raster scanning process.
b) (Apply the 2D transformations to the geometry shown in figure and show the transformed geometry along with coordinates. Translate the shape to (30,30), scale it to the factor 3, and rotate it to angle 30°. Assume that the 'A' is the reference point.



Typical two-dimensional geometrical shape.

- 3 (a) Discuss the wireframe, surface and solid modeling methods with neat illustrations.
(b) Explain the solid modeling technique to construct the model shown in figure and discuss each operation.



Solid model of an object.

Contd. in page 2

