Reg. No.

Credit Based II Semester B.Sc. (ID&D) Examination, September 2022 (New Syllabus) (Common to all Batches) **GRAPHICS – II**

Time: 2 Hours

Answer any four :

- 1. A square prism 40 mm side of base height 100 mm rests with its base on HP such that one of the rectangular faces is inclined at 30° to VP. A section plane perpendicular to VP and inclined at 60° to HP. Passes through a point on the axis at a height of 70 mm. Draw the front view and sectional top view. Project the true shape of the section.
- 2. A vertical cylinder of 60 mm diameter and 85 mm long is completely penetrated by a horizontal cylinder of 40 mm diameter and 75 mm long such that their axes bisect each other at right angles. The axes of both the cylinders are parallel to VP. Draw the intersection curve.
- 3. A hexagonal pyramid of side of base 30 mm and axis 70 mm rests on its base such that one of the base edges is parallel to VP. A section plane perpendicular to VP and inclined at 30° to HP bisects the axis of the pyramid. Draw the oblique projection of the truncated pyramid by the cavalier method when the receding axis is inclined at 45°.
- 4. A hexagonal prism 25 mm side of base and height 45 mm rests with its base on ground such that one of the rectangular faces is inclined at 30° to the picture plane and the nearest vertical edge of the prism is 10 mm behind the picture plane. The station point is 15 mm to the left of the nearest vertical edge, 40 mm in front of the picture plane and 70 mm above ground. Draw the perspective view.
- 5. A hexagonal prism of side of base 30 mm and 70 mm height has a square hole of sides 20 mm at the center. The axis of the square hole and hexagonal prism coincide and one of the faces of the square hole is parallel to a face of the hexagon. Draw its isometric projection.
- 6. A cone of diameter of base 70 mm and height 75 mm rests with its base on HP a cutting plane perpendicular to VP and inclined at 40° to HP cuts the cone. Such that it passes through the point on the axis at a distance of 40 mm above the base of the cone. Draw the isometric projection of the truncated cone showing the cut surface.

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 $(15 \times 4 = 60)$

Max. Marks: 60