

Reg No.: \_\_\_\_\_



**Jyothi Engineering College(Autonomous)**  
B. Tech Degree S1 (S) Examination, June 2026 (2025 Scheme)  
**25EST103 - ENGINEERING GRAPHICS AND COMPUTER AIDED DRAWING**



**Total Mark: 60**

Assume any missing data. Retain Construction lines. Show necessary dimensions. Each question carries 15 marks

**MODULE 1**

1. The top view of 75 mm long line AB, measures 65 mm while the length of its front view is 50 mm. Its one end A is in the HP and 12 mm in front of the VP. Draw the projections of AB and determine its inclination with the HP and VP. CO1 (15)

**OR**

2. The end A of a line AB is 20 mm above HP and 10 mm in front of VP. The line is inclined  $30^\circ$  to HP and front view is inclined  $45^\circ$  with XY. Top view is 60 mm long. Draw the projections. Find the true length and true inclination with VP. CO1 (15)

**MODULE 2**

3. A hexagonal prism base 30 mm side and axis 75 mm long has an edge of the base parallel to HP and inclined  $45^\circ$  to VP. Its axis makes an angle of  $60^\circ$  with HP. Draw its projection. CO2 (15)

**OR**

4. A square pyramid has base side 40 mm and axis 60 mm long. It is freely suspended from one of the corners of its base. The axis is parallel to the VP and inclined  $60^\circ$  to VP. Draw the projections of the pyramid. CO2 (15)

**MODULE 3**

5. A cylinder resting on HP on its base is cut by a section plane inclined at  $40^\circ$  to HP. Draw the projections of sectioned cylinder if the cutting plane passes through a point on the axis which is at a height of 90 mm, from the base, take the cylinder diameter as 75 mm and height as 105 mm. Also draw the true shape of the section. CO3 (15)

**OR**

6. A hexagonal prism of base side 20 mm and axis length 60 mm is resting on HP on its base with two of its vertical surfaces perpendicular to VP. It is cut by an auxiliary inclined cutting plane with an angle of inclination of  $50^\circ$  meets the axis of the prism at a distance of 10 mm from the top end. Draw the development of lateral surface of the prism. CO3 (15)

**MODULE 4**

7. A cone of base diameter 32 mm and height 40 mm is surmounted over a square slab of 40 mm side and 25 mm thickness. Draw the isometric view of the combination. CO4 (15)

**OR**

8. Draw isometric projection of a sphere 50 mm diameter resting centrally on a cube of side 80 mm. CO4 (15)

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