USN ☐☐☐☐☐☐☐☐☐☐

18EGDL15/25

First/Second Semester B.E. Degree Examination, Dec.2023/Jan.2024

ENGINEERING GRAPHICS

Time: 3 Hours   **(COMMON TO ALL BRANCHES)**   Max. Marks: 100

Note: 1. Answer three full questions.   2. Use A4 sheets supplied.
3. Draw to actual scale.   4. Missing data, if any, may be assumed suitably.

1. The front view of a 90 mm long line which is inclined at 45° to the XY line, measures 65 mm. End A is 15 mm above the XY line and is in VP. Draw the projections of the line and find its inclinations with HP and VP.   **25 Marks**

OR

1. A pentagonal lamina of side 25 mm is having a side both on HP and VP. The corner opposite to the side on which it rests is 15 mm above HP. Draw the top and front views of the lamina.   **25 Marks**

2. A cone of 50 mm base diameter and 60 mm axis length rests on HP on one of its generators. Draw its projections when the axis is inclined to VP at 30°.   **45 Marks**

3. A hexagonal pyramid, base sides 25 mm and height 60 mm, is resting with its base on HP and edge of base inclined at 40° to VP. It is cut to the shape of a truncated pyramid with the truncated surface inclined in the front view at a point on the axis 20 mm from the apex and inclined at 40° to XY. Draw the projections and show the development of the lateral surface of the remaining portion of the pyramid.

   30 Marks

OR

3. A rectangular pyramid of base 40 mm X 25 mm and height 50 mm is placed centrally on a cylindrical slab of diameter 100 mm and thickness 30 mm. Draw the isometric projection of the combination.   **30 Marks**

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