CBCS SCHEME

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17CED14/24

First/Second Semester B.E. Degree Examination, Jan./Feb. 2021

COMPUTER AIDED ENGINEERING DRAWING

(COMMON TO ALL BRANCHES)

Time: 3 Hours 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. a. A point A is on HP and 35 mm in front of VP. Another point B is on VP and below HP. The line joining their front views makes an angle of 30° to XY line, while the line joining their top views makes an angle of 45° with XY line. Find the distance of the point B from HP. **10 Marks**

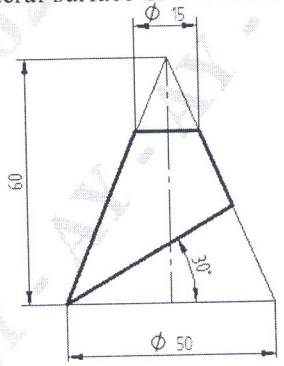
b. The end A of a line AB is on HP and 25 mm in front of VP. The end B is 25 mm in front of VP and 50 mm above HP. The distance between the end projectors when measured parallel to the line of intersection of HP and VP is 65 mm. Draw the projections of the line AB and determine its true length and true intonations with HP and VP. **20 Marks**

OR

1. A regular pentagonal lamina of 25 mm side is resting on one of its corners on HP while the side opposite to this corner touches VP. If the lamina makes an angle of 60^0 with HP and 30^0 with VP, draw the projections of the lamina. **30 Marks**

2. A hexahedron of 30 mm sides is resting on one of its corners on HP such that one of its solid diagonal is perpendicular to VP. Draw the projections of the solid. **40 Marks**

3. Draw the development of the lateral surface of the cone, whose front view is as shown in the following figure.



30 Marks

OR

3. The frustum of a square pyramid of base sides 40 mm, top face side 20 mm and height 60 mm rests on the centre of the top of a square block of side 60 mm and height 20 mm. The base edges of the pyramid are parallel to the top edges of the square block. Draw the isometric projection of the combination of the solids. **30 Marks**