USN

CBSC SCHEME

15CED14/24

First/Second Semester B.E. Degree Examination, December 2019

COMPUTER AIDED ENGINEERING DRAWING

Time: 3 Hours **(COMMON TO ALL BRANCHES)** Max. Marks: 80

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. Draw the projections of the following points on the same XY line, keeping convenient distance between each projector. Name the quadrants in which they lie.

A -30 mm above HP & 35mm in front of VP.

B -35 mm above HP & 40 mm behind VP.

C -40 mm above HP & on VP.

D -35 mm below HP & 30 mm in front of VP. **10 Marks**

b. The top view of a line 75 mm long measures 50 mm. The end P is 30 mm in front of VP and 15 mm above HP. The ends Q is 15 mm in front of VP and above HP. Draw the projection of the line and find its true inclination with HP and VP. **25 Marks**

OR

1. A rectangular lamina of sides 20 mm X 30 mm rests on HP on one of the longer edges. The plane surface is inclined to HP at 45^0. The edge on which it rests is inclined at 30° to VP. Draw the projection of the lamina. **25 Marks**

2. A pentagonal pyramid of 25 mm sides of base and 60 mm axis length rests on HP on one of its edges of the base. Draw the projections of the pyramid when the axis is inclined to HP at 45° and VP at 30^0. **30 Marks**

3. A cube of side 40 mm is resting on HP with its base on HP such that one of its vertical faces is inclined at 30^0 to the VP. It is cut by a section plane perpendicular to the VP inclined to HP at an angle 45^0 and passes through the midpoint of the axis. Draw the development of the lower lateral surface of the cube. **25 Marks**

OR

3. A cone of base diameter 60 mm top diameter 40 mm and height 50 mm is placed centrally on frustum of a square pyramid of base side 100 mm top face side 60 mm and height 20 mm. Draw the isometric projection of the combination **25 Marks**