AJEENKYA
D Y PATIL UNIVERSITY

End Term Examinations (April-May 2019)

School: School of Engineering. **Program: B-Tech Foundation year**

Course: Computer Aided Engineering Graphics **Course Code: ENG106**

Semester: II **Max Marks: 50** **Duration (mins): 150**

Note:

- Answer **Q1 or Q2, Q3 or Q4, Q5 or Q6, Q7 or Q8**.
- Figures to the right side indicate full marks.
- Assume suitable data if necessary.
- **Retain construction lines**.
- Marks are reserved for dimensioning and good presentation.

1. A top view of a 75 mm long line AB measures 65 mm, while the length of its front view is 50 mm. It's one end A is in the H.P. and 12 mm in front of the V.P. Draw the projections of AB and determine its inclination with H.P. and the V.P.

[12]

OR

2. A regular Pentagon of side 20 mm has one of its sides on the VP. Its surface makes an angle of 60° with the ground. Draw its projections.

[12]

3. (a)The major and minor axes of an ellipse are 120 mm and 80 mm respectively. Construct the curve. What is the distance between the foci?

[8]

(b) A cylinder of diameter of base 40 mm and height 50 mm is standing on its base on HP. A cutting plane inclined at 45° to the axis of the cylinder passes through the left extreme point of the top. Develop the lateral surface of the truncated cylinder. **[7]**

OR

4. (a) Construct a conic when the distance between its focus and its directrix is equal to 50 mm and its eccentricity is 1. Name the curve.

[8]

(b) A pentagonal pyramid, side of base 50 mm and height 80 mm rests on its base on the ground with one of its base sides parallel to V.P. A section plane perpendicular to VP and inclined at 30° to H.P cuts the pyramid, bisecting its axis. Draw the development of the truncated pyramid.

[7]

5. Draw the involute of a circle of radius 30 mm. **[13]**

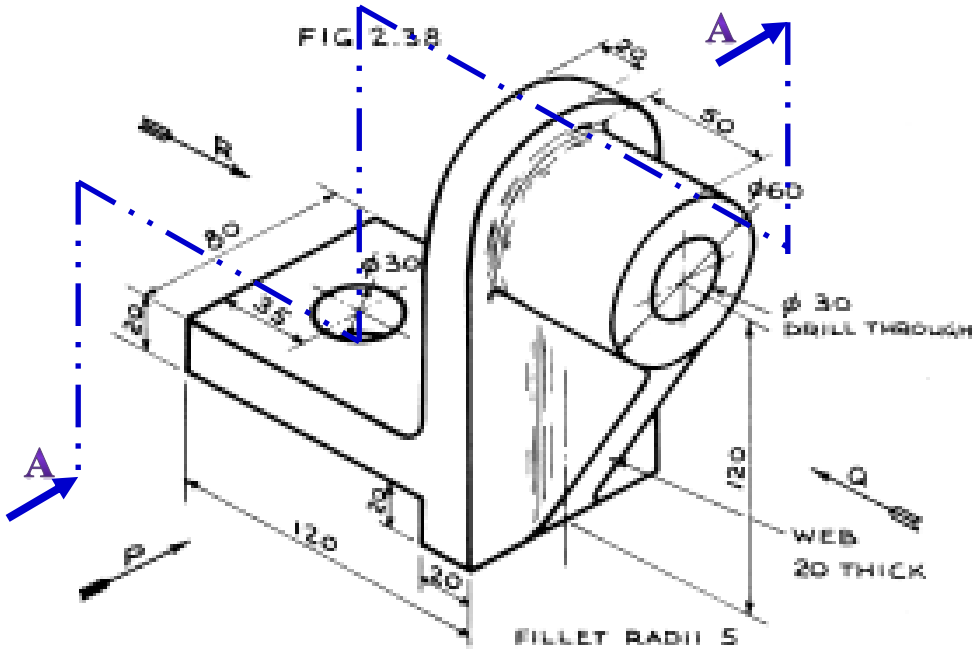
OR

6. Construct a cycloid having a rolling circle of 60 mm diameter.

[13]

7. The following Fig. No. 1 shows a cast iron bracket. By using first angle projection method draw its views assuming view direction "Q":

(a) Sectional LHS view along plane A-A
(b) Front view
(c) Top view
Give all the dimensions **[10]**



OR

8. Draw the Isometric projection of the below casting

[10]