

**DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/
MANAGEMENT/COMMERCIAL PRACTICE, APRIL – 2020**

ENGINEERING GRAPHICS

[Maximum Marks: 75]

[Time: 2.15 Hours]

- [Note: 1. Both sides of drawing sheet can be used
2. Drawings should be in first angle projection.
3. Theory questions can be answered in answer book.
4. Sketches accompanied.
5. Dimensioning as per BIS.]

PART-A

(Answer **any three** questions in one or two sentences. Each question carries 2 marks)

- I. 1. Write down the standard sizes of A2 and A3 drawing sheets as per BIS.
2. List any four methods for construction of ellipse.
3. Define Orthographic projection.
4. Explain briefly the purpose of drawing an auxiliary view.
5. Write any four applications of CAD. **(3x2=6)**

PART-B

II. (Answer any **four** of the following questions. Each question carries 11 marks)

1. Redraw the given figure 1 and dimension as per BIS.
2. Inscribe a regular pentagon in a circle where the length of one side is equal to 25mm.
3. The major axis of an ellipse is 110 mm and minor axis is 70 mm long. Draw the ellipse by concentric circle method.
4. Draw the projections of the following points on a common reference line.
 - (a) Point A is in both HP and VP.
 - (b) Point B is 20 mm below HP and 10 mm in front of VP.
 - (c) Point C is 20 mm above HP and 30 mm behind VP.
 - (d) Point D is 20 mm below HP and 10 mm behind VP
 - (e) Point E is 25 mm above HP and 25 mm behind VP.
5. A line EF 60 mm long is parallel to HP and inclined at 45° to VP. Draw the projection of the line if E is 15 mm above HP and 10 mm in front of VP. Also mark it's trace.
6. Draw to suitable scale the development of a bucket shown in Figure 2.

7. Isometric view of a forked end is shown in figure 3. Draw to scale the front view looking in the direction of F and an auxiliary view of the slant surface.

(4x11=44)

PART-C

III. (Answer any *one* question from the following carries 25 marks)

1. Figure 4 shows the pictorial view of a cast iron block. Draw the following views.
 - (a) Front view in the direction of F.
 - (b) Right Side view
 - (c) Top view
2. Pictorial view of a machine part is shown in Figure 5. Draw front view and sectional top view taking section along A-A.
3. Orthographic views of an object is shown in Figure 6. Draw the isometric view.

(1x25=25)

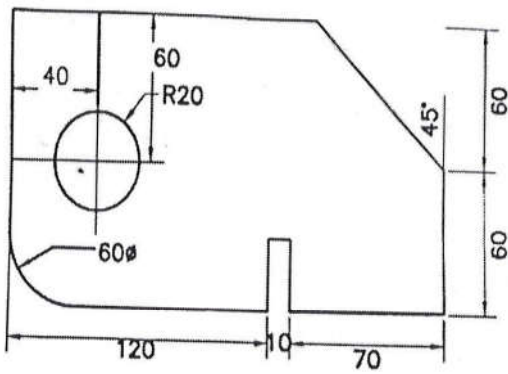


Fig 1

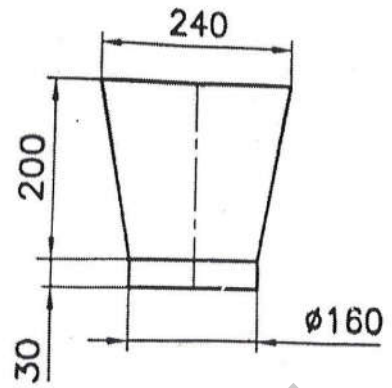


Fig 2

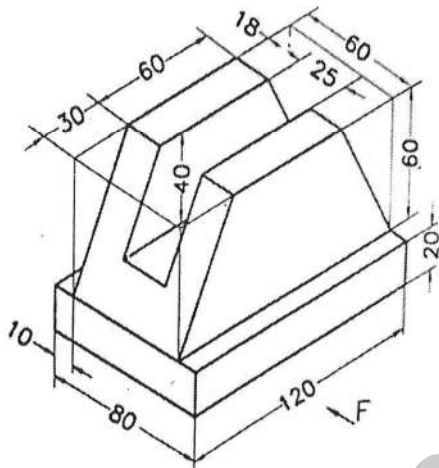


Fig 3

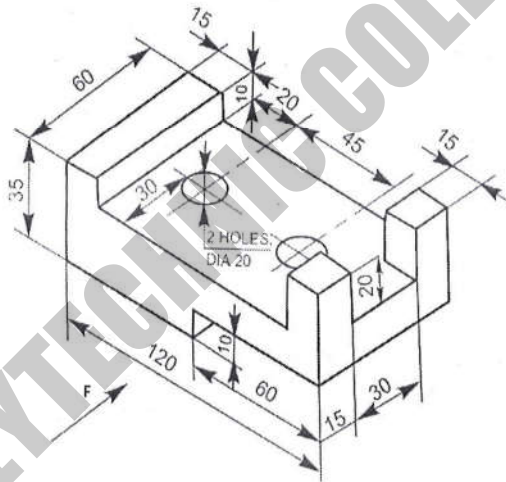


Fig 4

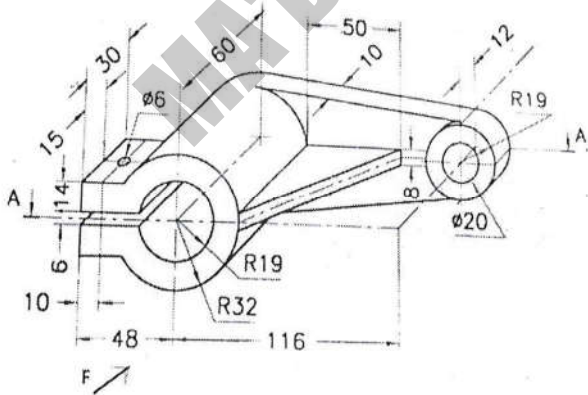


Fig 5

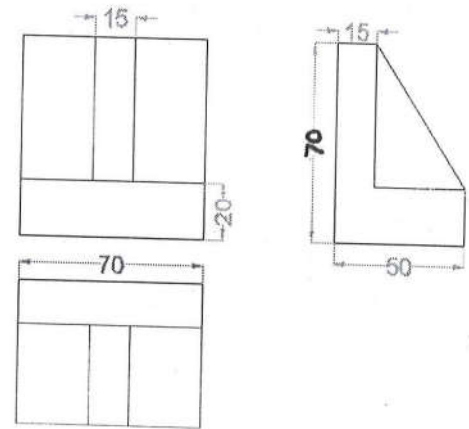


Fig 6