

**SECOND SEMESTER DIPLOMA EXAMINATION IN ENGINEERING/
TECHNOLOGY — APRIL, 2017**

ENGINEERING GRAPHICS

(Common to all branches except DCP and CABM)

[Time : 3 hours

(Maximum marks : 100)

- [Note :— 1. Missing data if any suitably assumed.
2. Sketches to be accompanied.]

PART — A

(Maximum marks : 10)

Marks

I Answer the following questions in one or two sentences. Each question carries 2 marks.

1. Write shape indications recommended by BIS for diameter, radius, square and spherical diameter.
2. List any four types of conical sections.
3. Define cycloid.
4. What is an isometric plane ?
5. What do you mean by general oblique projection ? (5×2=10)

PART — B

(Maximum marks : 50)

(Answer any five of the following questions. Each question carries 10 marks.)

- II Redraw the given figure 1 and dimension as per BIS.
- III Draw an ellipse by rectangular method whose major axis is 140mm and minor axis is 80mm.
- IV Construct a diagonal scale of 1:5000 to show single meter and long enough to measure 300 meters. Mark on the scale a distance of 285.5 meters.

- V Draw the projections of following points on a common reference line.
- P in HP and 35mm in front of VP.
 - Q in HP and 35 mm behind VP.
 - R in both HP and VP.
 - S in VP and 30mm above HP.
 - T in VP and 35mm below HP.
- VI A line AB 100mm long is inclined at 30° to the HP. The end A is 15mm below HP and 20mm behind VP. Front view of the line measures 75mm. Draw the top view of AB and determine its inclination with the VP.
- VII A triangular plane is in the form of an isosceles triangle having base with 30mm and an altitude of 40mm. It is kept in the first quadrant such that the surface is perpendicular to both HP and VP. Draw its projection when the base is parallel to VP.
- VIII Draw the development of a funnel shown in fig. 2. (5 × 10 = 50)

PART — C

(Maximum marks : 40)

(Answer *any two* of the following questions. Each question carries 20 marks.)

- IX Figure 3 shows the pictorial view of a shaft bearing. Draw its front view in the direction of the arrow F and top view.
- X The pictorial view of an object shown in figure 4. Draw full sectional front view in the direction F and side view from right.
- XI The orthographic view of an object shown in figure 5. Draw its isometric view.

(2 × 20 = 40)

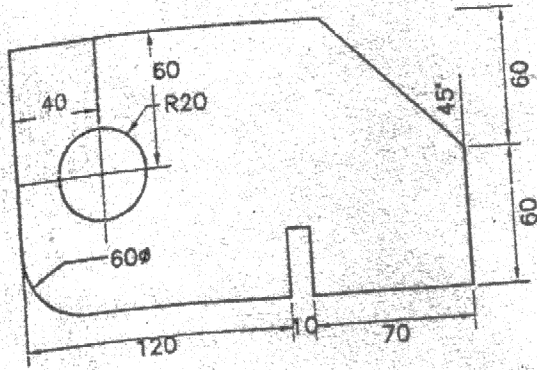


Fig-1

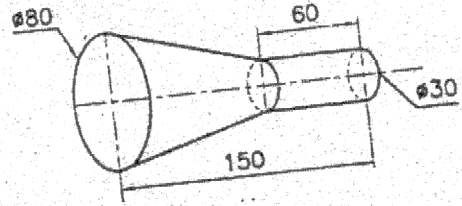


Fig-2

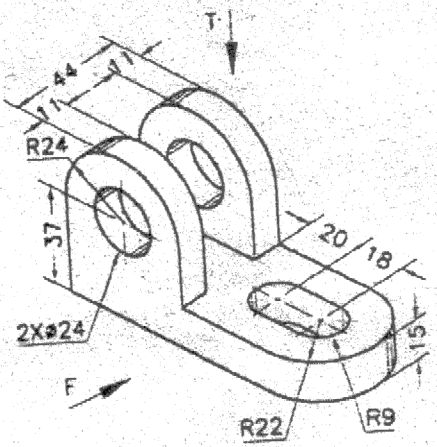


Fig-3

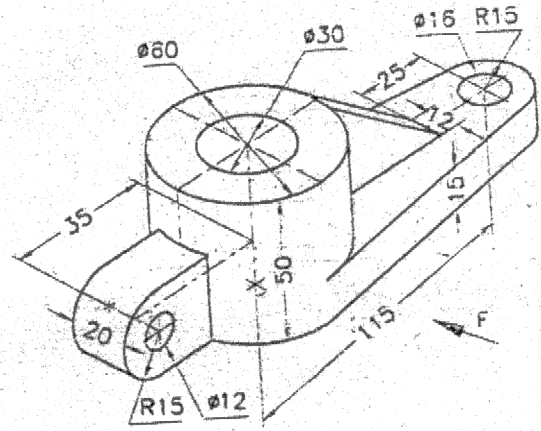


Fig-4

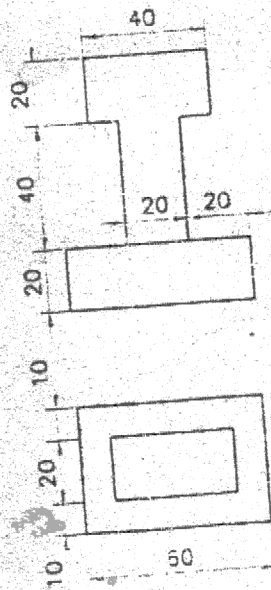


Fig-5