

TED (10)–1017

(REVISION—2010)

Reg. No. ....

Signature .....

SECOND SEMESTER DIPLOMA EXAMINATION IN ENGINEERING/  
TECHNOLOGY—MARCH, 2012

ENGINEERING GRAPHICS

(Common to all branches except DCP and CABM)

[Time : 3 hours

(Maximum marks : 100)

[Note :—1. A2 size drawing sheet to be used.

2. All drawing should be in first angle projections.

3. Both sides of the drawing sheets can be used.

4. Dimensioning as per BIS.

5. Sketches accompanied.]

PART—A

Marks

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

1. What is the use of spring bow compass ?
2. Specify the position of top view and R.H.S. end view with respect to the elevation in first angle projection.
3. Show the symbol of projections used in first angle projection.
4. What are the different types of sectional elevation ?
5. What are the different types of oblique projection ?

(5×2=10)

PART—B

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

- II Redraw the given fig. 1 to full size and dimension it as per BIS.
- III The major axis of an ellipse is 100 mm and the ratio between major axis and minor axis is in the ratio of 5 : 3. Construct the ellipse by concentric circle method.
- IV Draw the projections of the following points on a common reference line :
  1. Point P is in HP and 30 mm in front of VP.
  2. Point Q is in VP and 35 mm below HP.
  3. Point R is in both HP and VP.
  4. Point S is in the HP and 35 mm behind VP.
  5. Point T is in the VP and 30 mm above HP.

- V The length of elevation of a line PQ which is parallel to HP and inclined at  $30^\circ$  to VP is 60 mm. The end P of the line is 20 mm in front of VP and 25 mm above HP. Draw the projections of the line and find its true length.
- VI The isometric view of a simple object is given in fig. 2. Draw the minimum number of orthographic views (free hand) needed to represent the object fully.
- VII Fig. 3 shows an isometric view of a bracket having a sloping surface. Draw the front view in the direction of arrow F and an auxiliary projection of the inclined surface.
- VIII Draw the development of the funnel shown in fig. 4. (5×10=50)

## PART—C

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

- IX Pictorial view of a stepped block is shown in fig. 5. Draw the following orthographic views :
1. Front view in the direction of F.
  2. Top view.
  3. Right side view.
- X The pictorial view of an actuating arm is shown in fig. 6. Draw the following views :
1. Full sectional elevation in the direction F.
  2. Top view.
- XI Orthographic views of a shaft support is shown in fig. 7. Draw the isometric view of the same. (2×20=40)
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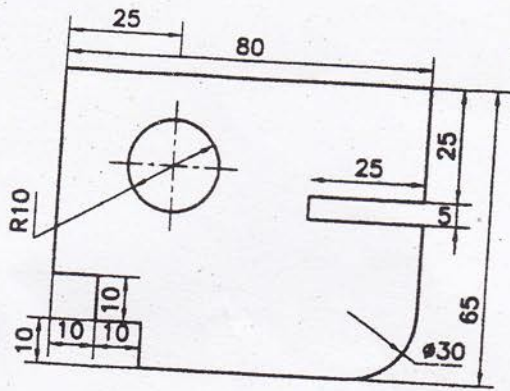


FIG-1

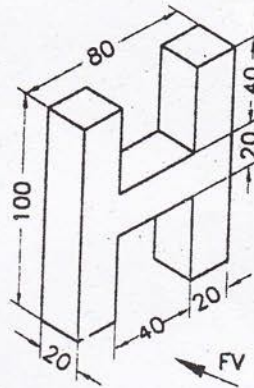


FIG-2

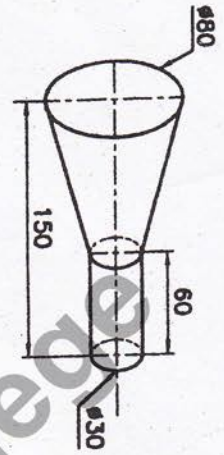


FIG-4

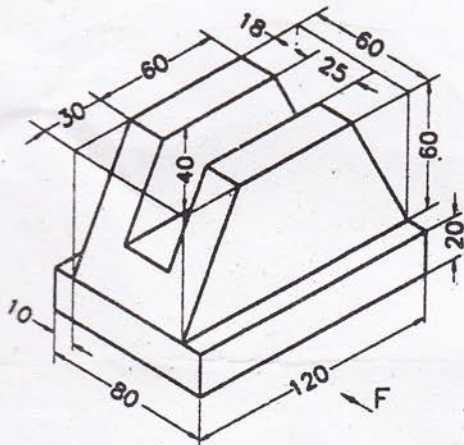


FIG-3

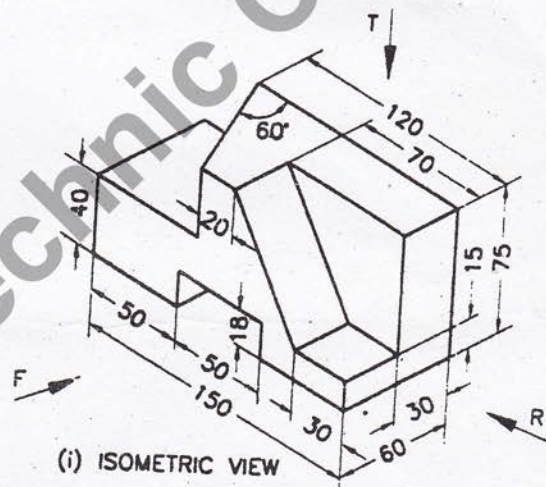


FIG-5

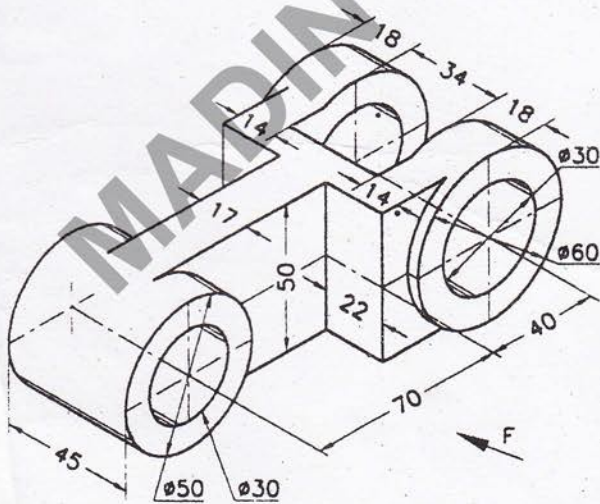


FIG-6

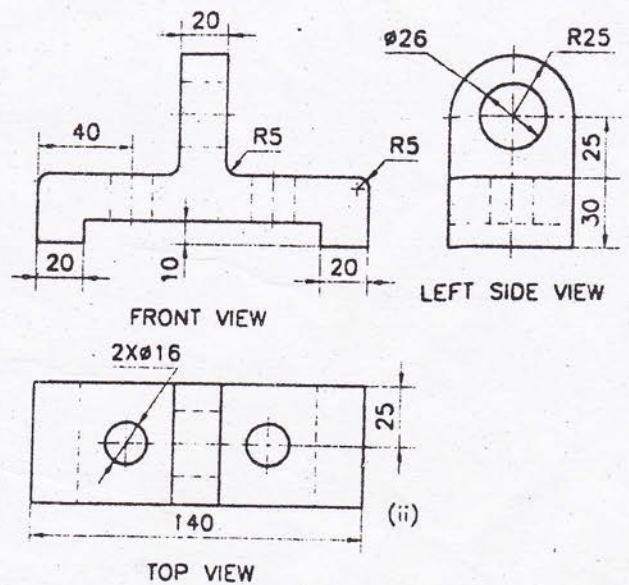


FIG-7