DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/ MANAGEMENT/COMMERCIAL PRACTICE — OCTOBER, 2018

ENGINEERING GRAPHICS

[*Time* : 3 hours

(Maximum marks : 100)

[*Note :*—1. Missing data if any may be suitably assumed.

2. Sketches are accompanied.

3. All drawings should be in first angle projection.]

PART — A

(Maximum marks : 10)

Marks

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

1. Define Representative Fraction (RF).

2. Define a helix.

3. Name different types of oblique projections.

4. Illustrate the need of drawing auxiliary views.

5. Write the different types of coordinate systems used in Auto CADD.   (5×2 = 10)

PART — B

(Maximum marks : 50)

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

II   Read the dimensional drawing shown in fig. I. Redraw the fig. I and dimension it as per BIS.

III   A ball thrown up in air reaches a maximum height of 45 m and travels a horizontal distance of 75 m. Trace the path of the ball and name it.

IV   Construct a cycloid. Given the radius of the rolling circle as 25mm.

V   Draw a plain scale of lcm = 5m, and show on it 37m.

[10]   [P.T.O.

Marks

VI   Draw the projections of the following points. Take the distance between the projectors as 30 mm.

(a)   Point A in HP and 20mm behind VP.

(b)   Point B is 40mm above HP and 25mm in front of VP.

(c)   Point C is in VP and 40 mm above HP.

(d)   Point D is 25mm below HP and 30mm behind VP.

(e)   Point E is in both HP and VP.

VII   Draw the development of an elbow shown in Fig. II.

VIII Draw the projection of a line AB 100mm long inclined at 40° to HP parallel to VP and 10mm in front of VP.   (5×10=50)

PART — C
### (Maximum marks : 40)

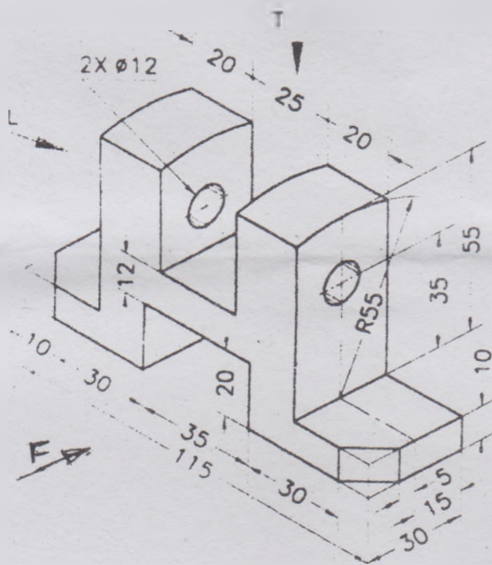(Answer any *two* of the following questions. Each question carries 20 marks.)

IX   The pictorial view of a horizontal support is shown in Fig. III. Draw the front view in the direction of F, top view and left side view.

X   The orthographic view of a support is shown in Fig. IV. Prepare the isometric drawing.

XI   Pictorial view of a machine block is shown in Fig. V. Draw the front view in the direction of Arrow F, Top view and also the front auxiliary view of the sloping surface.
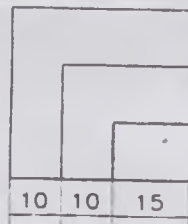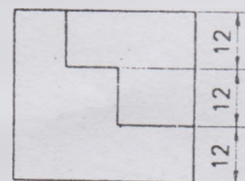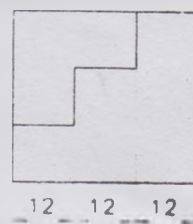
(2×20=40)
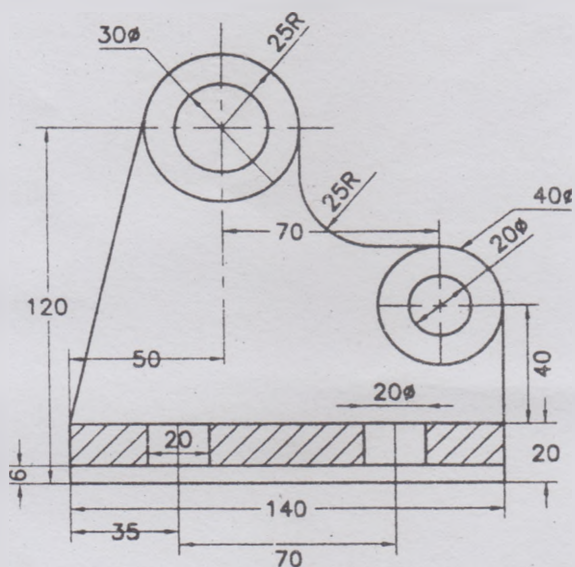
(Fig. I)
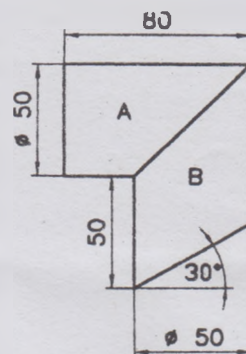
(Fig. II)

(Fig. III)

(i) ORTHOGRAPHIC

(Fig. IV)