

**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.]

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

Marks

- (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.

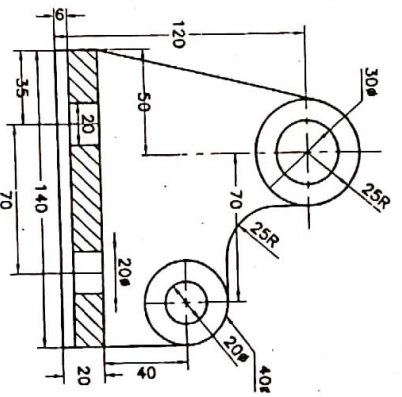
VIII Draw the projection of a line AB 100mm long inclined at 40° to HP parallel to VP and 10mm in front of VP. (5×10=50)

PART - C

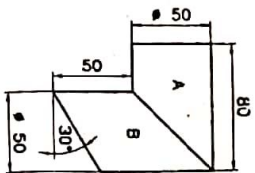
(Maximum marks : 40)

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

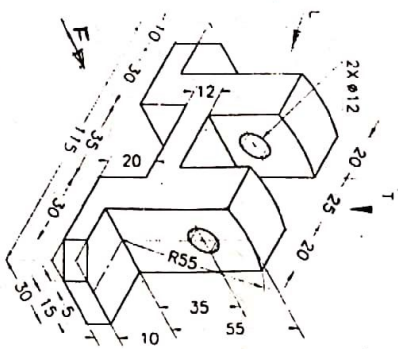
- IX The pictorial view of a horizontal support is shown in Fig. III. Draw the front view in the direction of F, top view and left side view.
- X The orthographic view of a support is shown in Fig. IV. Prepare the isometric drawing.
- XI Pictorial view of a machine block is shown in Fig. V. Draw the front view in the direction of Arrow F, Top view and also the front auxiliary view of the sloping surface. (2×20=40)



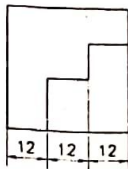
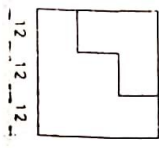
(Fig. I)



(Fig. II)

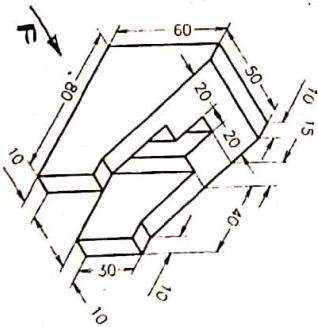


(Fig. III)



(i) ORTHOGRAPHIC

(Fig. IV)



(Fig. V)