

DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/
MANAGEMENT/COMMERCIAL PRACTICE — APRIL, 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 drawing should be in first angle projections.]

PART — A

(Maximum marks : 10)

Marks

- I Answer *all* questions in one or two sentences. Each question carries 2 marks.
1. Write the name of any four types of lines.
 2. Define eccentricity of conic section.
 3. Write any four elements of dimensioning.
 4. Define plane of projection.
 5. Write any four commands 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 Construct a regular octagon of side 20mm.
- IV One focus of an ellipse is at a distance of 30mm from its directrix. Draw the ellipse given the eccentricity as $\frac{3}{5}$.
- V Draw the projections of the following points. Take the distance between projectors as 30mm.
 - (a) Point A is 30 mm above HP and 20mm in front of VP.
 - (b) Point B is in HP and 25mm in front of VP.
 - (c) Point C is 25mm above HP and 40mm behind VP.
 - (d) Point D is in VP and 40mm above HP.
 - (e) Point E is in both HP and VP.

- VI A line AB 65mm long has its end A 20mm above HP and 25mm in front of VP. The end B is 40mm above HP and 65mm in front of VP. Draw the projections of AB and show the inclination with HP and VP.
- VII A regular pentagonal lamina of 40mm side has its plane vertical and inclined 30° to VP. Draw the projections when one of its sides is perpendicular to the HP.
- VIII Fig. II shows the two views of a tray. Draw its development.

(5×10 = 50)

PART — C

(Maximum marks : 40)

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

- IX Fig. III shows the pictorial view of a block. Draw its front view in the direction of F, Top view and Right side view.
- X Oblique view of an object is shown in Fig. IV. Draw its half sectional front view looking in the direction of F, full plan and left side view.
- XI The orthographic views of a support are shown in Fig. V. Prepare an isometric drawing.

(2 × 20 = 40)

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