TED (10) – 1017

(REVISION — 2010)

Reg. No.....

Signature .....

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

ENGINEERING GRAPHICS

[*Time* : 3 hours

(Maximum marks : 100)

[*Note* :—1. A2 size drawing sheet to be supplied.
2. All drawing should be in first angle projections.
3. Both sides of the drawing sheet can be used.
4. Dimensioning as per BIS.
5. Sketches accompanied.]

PART — A

(Maximum marks : 10)

Marks

I Answer *all* questions in one or two sentences. Each question carries 2 marks.

1. What is reference line or xy line.
2. Give the names of the conic curves having eccentricity unity and eccentricity less than unity.
3. Give the length and width of the drawing boards designated as D0, D1, D2 and D3.
4. What is the difference between oblique view and isometric view ?
5. What are the uses of sectional views ? (5×2 = 10)

PART — B

(Maximum marks : 30)

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

II Redraw the figure -1 and dimensions it as per BIS.

III Draw a parabola, if the distances of its focus from the directrix is 60 mm. Draw a tangent and normal at any point on the parabola.

IV Draw the projections of the following points in a common reference line.

(a) Point P is 12mm above HP and 20mm in front of VP.

(b) Point Q is 24mm below HP and 30mm behind VP.

(c) Point R is in HP and 32mm behind VP.

(d) Point S is 15mm below HP and 40mm in front of VP.

(e) Point T is in HP and in VP.

Marks

V A line AB of length 80mm is inclined 45° to HP and 30° to VP. The end A of the line is 15mm above HP and 20mm in front of VP. Draw its projections.

VI Draw the involute of a square of side 25mm.

VII A hexagonal plane of side 30mm, has its one edge parallel to VP and l6mm in front of it. The plane is inclined 40° to VP and the lowest corner is 12mm above HP. Draw its projections.

VIII The three orthographic views of an object is shown in figure 2. Draw the isometric view. (5×10=50)

PART — C

(Maximum marks : 40)

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

IX The isometric view of an object is shown in figure - 3. Draw its front view, top view and left side view.

X The isometric view of a lever is shown in figure - 4. Draw the full sectional elevation and plan.

XI Draw the development of the elbow shown in figure - 5. (2×20=40)

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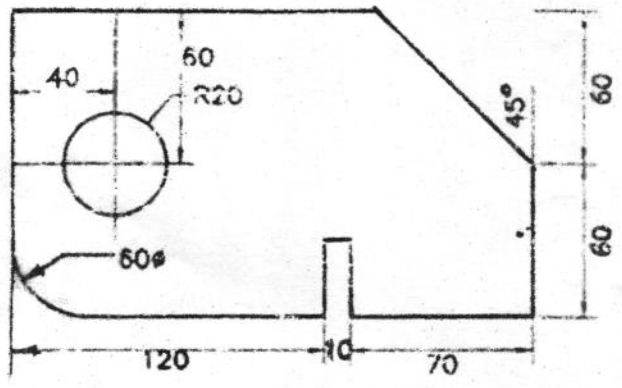

Figure 1

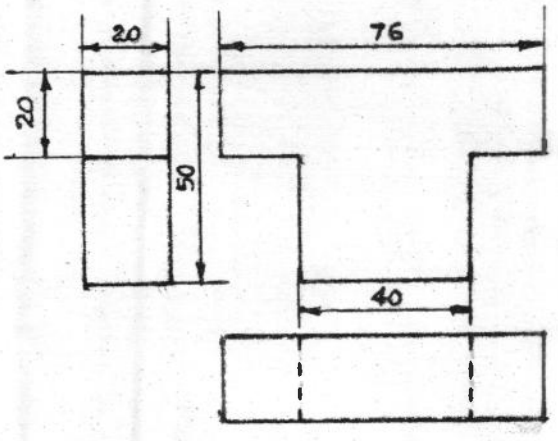

Figure 2

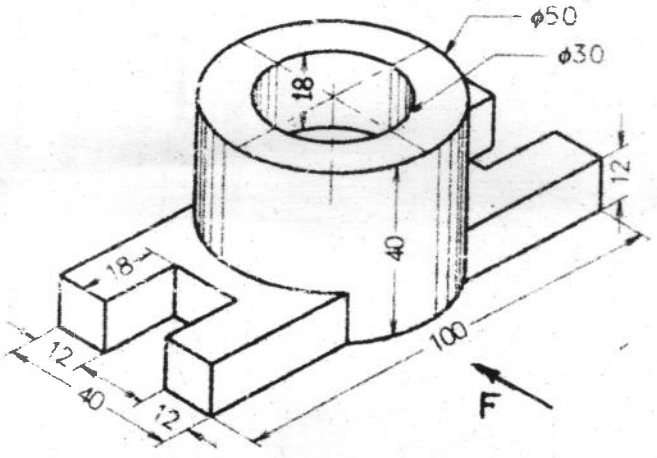

Figure 3

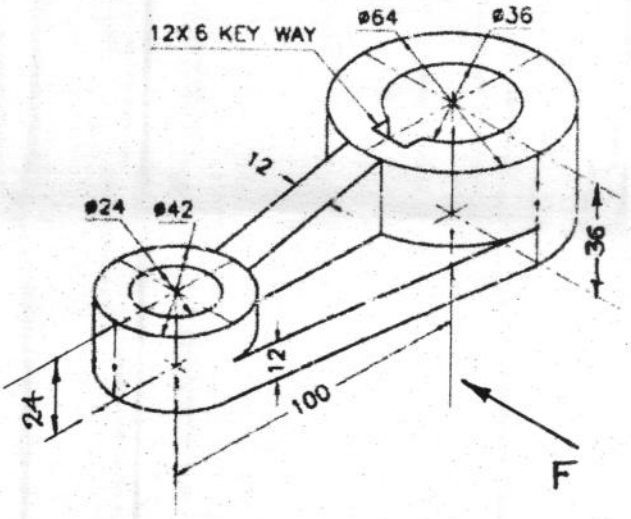

Figure 4

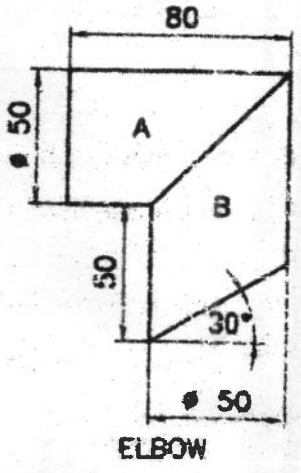

Figure 5