TED (10) – 1017 Reg. No.....

(REVISION — 2010) Signature .....

DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/ MANAGEMENT/COMMERCIAL PRACTICE — OCTOBER, 2017

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. Write any four graphic instruments.
2. What are the elements of dimensioning used in Engineering Graphics ?
3. Define Parabola.
4. Calculate the sector angle (∅) of the development of a cone whose slant height is 155mm, and radius of the base circle is 40mm.
5. Compare Cavalier and Cabinet projections. (5×2=10)

PART — B

(Maximum marks : 50)

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

II Redraw the Fig.-1 to full size and dimension it as per BIS.

III Draw an ellipse by rectangular (Oblong) method. Given the major and minor axes are 150 mm and 90mm respectively.

IV A circle of diameter 50 mm is given. Inscribe a regular pentagon within the circle.

Marks

V Draw the projections of the following points on a common reference line.

(a) Point A is 30mm above HP and 20mm in front of VP.

(b) Point B is 30mm below HP and 20mm behind VP.

(c) Point C is 35mm above HP and 15mm behind VP.

(d) Point D is 15mm below HP and 35mm in front of VP.

VI A regular pentagonal lamina of 40 mm side has its plane vertical and inclined at 30° to the VP. Draw its projections when one of its sides is perpendicular to the HP.

VII Fig.- 2 shows two views of a tray made from GI sheet. Draw its development.

VIII Fig.- 3 shows Isometric view of a machine block having a sloping surface. Draw the front view in the directions of F, top view and an auxiliary view of the inclined surface. (5×10=50)

PART — C

(Maximum marks : 40)

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

IX The pictorial view of a machine part shown in Fig.- 4. Draw its front view in the direction of F, top view and left side view.

X Isometric view of a lever shown in Fig. - 5. Draw

1. Full sectional elevation.
2. Top view.

XI A front and side views of a V block are shown in Fig. - 6. Draw the Cavalier oblique drawing. Take the receding axis at 45° to the horizontal, sloping upwards and to the right. (2×20=40)

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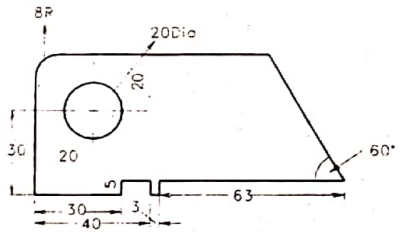

Fig. 1

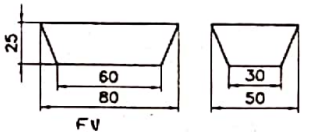

Fig. 2

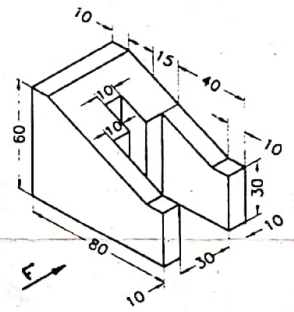

Fig. 3

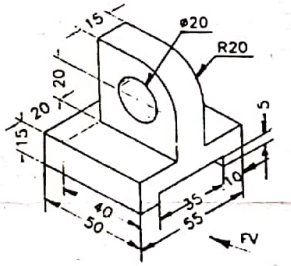

Fig. 4

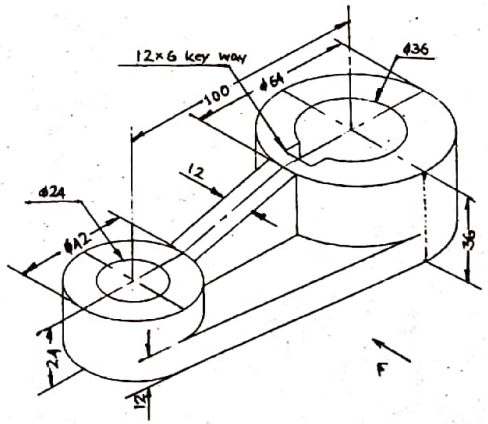

Fig. 5

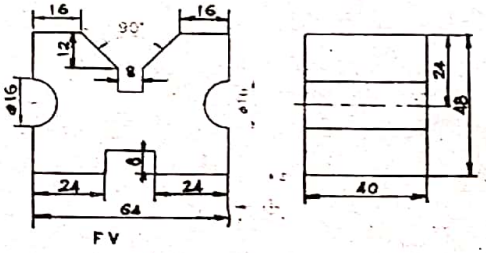

Fig. 6

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