TED (21) – 1005 REVISION 2021

FIRST SEMESTER DIPLOMA EXAMINATION IN
ENGINEERING AND TECHNOLOGY
(Common to all Diploma Programmes)

ENGINEERING GRAPHICS

MODEL QUESTION PAPER – SET-1

Time: 3 hours Maximum Marks: 75

[Note: - 1. A2 size drawing sheet to be supplied.
2. Missing data if any suitably assumed.
3. Sketches are accompanied.
4. All drawing should be in first angle projections.]

PART – A

(Maximum marks: 5)

I. Answer *all* the following questions in one word or sentence or sketch. Each question carries 1 mark.

1.	Mention the names of any two types of lines used in general engineering drawing.	CO1	U
2.	Define the term projection.	CO2	U
3.	Give the need for sectional views?	CO3	A
4.	What do you mean by isometric view?	CO4	A
5.	What do you mean by CADD?	CO4	A

(5 x 1 = 5 Marks)

PART – B

(Maximum marks: 40)

II. Answer any *five* of the following questions. Each question carries 8 marks.

1.	Draw a regular pentagon of side 30mm.	CO1	U
2.	Draw an Ellipse by concentric circle method, major axis is 90 mm and minor axis is 50 mm.	CO1	U

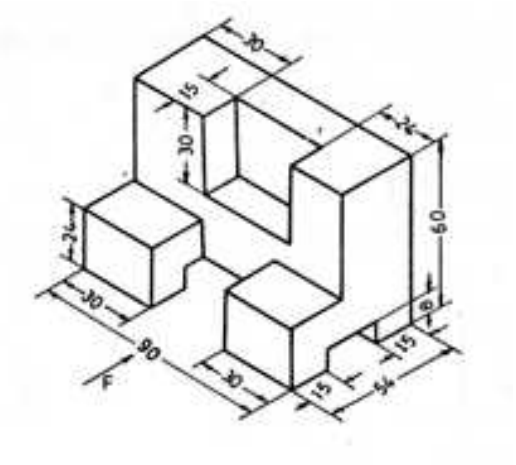
3.	Draw a Parabola of base 90 mm and axis 60 mm using tangent method.	CO1	U
4.	Draw a single start helix for 1 convolution on a cylinder with base diameter 50 mm and height 65 mm.	CO1	U
5.	Draw the projections of the following points on a common reference line: a. Point A is 25 mm above H.P. and 20 mm in front of V.P. b. Point B is 35 above H.P. and 20 mm behind V.P. c. Point C is on the H.P. and 25 mm behind V.P.	CO2	U
6.	Draw the projections of a line AB 60 mm long inclined at 30 degrees to H.P. and parallel to V.P. and 10 mm above H.P. and 20 mm infront of V.P.	CO2	A
7.	The length of the elevation of a line PQ which is parallel to H.P. and inclined at 30^0 to V.P. is 60 mm.The end P of the line is 20 mm infront of V.P. and 25 mm above H.P.Draw the projections of the line and find its true length.	CO2	A

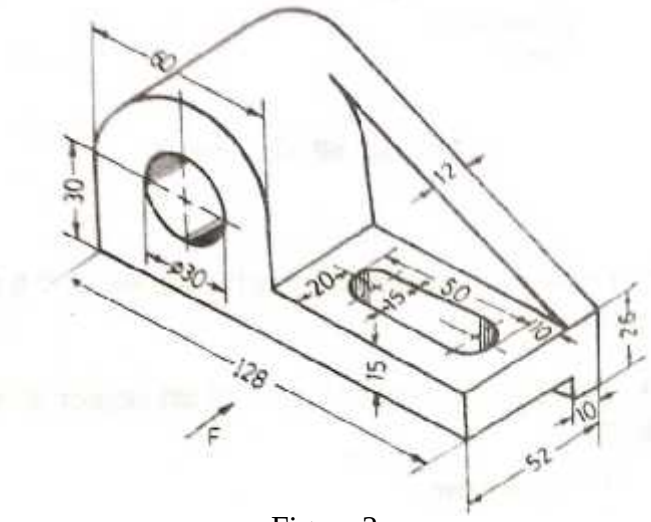
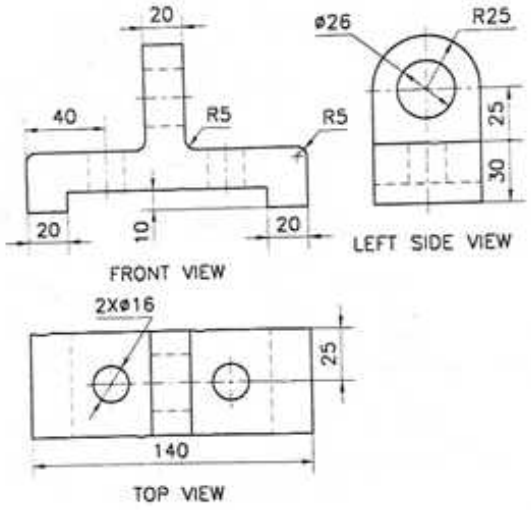
(5 x 8 = 40 Marks)

PART – C

(Maximum marks: 30)

III.Answer any *two* of the following questions. Each question carries 15 marks.

1	Isometric view is shown in figure 1.Draw the front view in the direction of the arrow F and top view.  Figure 1	CO3	U

2	Isometric view is shown in figure 2.Draw the front view in the direction of the arrow F and top view.  Figure 2	CO3	U
3	Orthographic views of an object are shown in figure3. Draw the isometric view of the object.  Figure 3	CO4	A

(2 x 15 = 30 Marks)

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ENGINEERING GRAPHICS

MODEL QUESTION PAPER – SET-2

Time: 3 hours Maximum Marks: 75

[Note: - 1. A2 size drawing sheet to be supplied.
2. Missing data if any suitably assumed.
3. Sketches are accompanied.
4. All drawing should be in first angle projections.]

PART – A

(Maximum marks: 5)

I. Answer *all* the following questions in one word or sentence or sketch. Each question carries 1 mark.

1.	Write the names of four basic drawing instruments used in engineering drawing.	CO1	U
2.	Define representative fraction (R.F).	CO1	U
3.	Define plane of projection.	CO2	U
4.	Show the symbol of projection used in first angle projection.	CO3	U
5.	Write any two commonly used CAD packages.	CO4	A

(5 x 1 = 5 Marks)

PART – B
(Maximum marks: 40)

II. Answer any *five* of the following questions. Each question carries 8 marks.

1.	Construct a regular octagon of side length 40 mm.	CO1	U
2.	Draw an Ellipse by rectangular method, major and minor axes given as 150 mm and 90 mm respectively.	CO1	U

3.	Draw a Parabola with the vertex located 30 mm from its directrix.	CO1	U
4.	Draw an involute of a circle 50 mm in diameter.	CO1	U
5.	Draw the projections of the following points on a common reference line: a. Point A is 24 mm below H.P. and 30 mm behind V.P. b. Point B is in 35 H.P. and 32 mm behind V.P. c. Point C is 15 mm below H.P. and 40 mm in front of V.P.	CO2	U
6.	A straight-line AB 50 mm long is parallel to the H.P. and inclined at 35^0 to the V.P. The end A is 25 mm in front of the V.P. and the line is 40 mm above the H.P. Draw its projections.	CO2	A
7.	The length of the top view of a line parallel to V.P. and inclined at 45^0 to H.P. is 50 mm. One end of the line is 12 mm above H.P. and 25 mm in front of V.P. Draw the projections of the line and determine its true length.	CO2	A

(5 x 8 = 40 Marks)

PART – C

(Maximum marks: 30)

III.Answer any *two* of the following questions. Each question carries 15 marks.

1	Isometric view of a shaft bearing is shown in figure 1.Draw the front view in the direction of the arrow F and top view in the direction of the arrow T.	CO3	U
2	Figure 2shows pictorial views of an object. Draw the following views: (i) Full sectional front view in the direction of the arrow F. (ii) Top view.	CO3	A
3	Figure 2 shows the orthographic projections of a block. Draw the isometric view to the full scale.	CO4	A

(2 x 15 = 30 Marks)

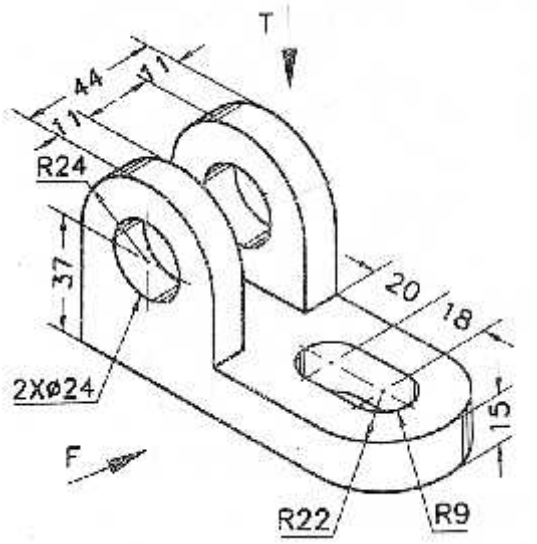

Figure 1

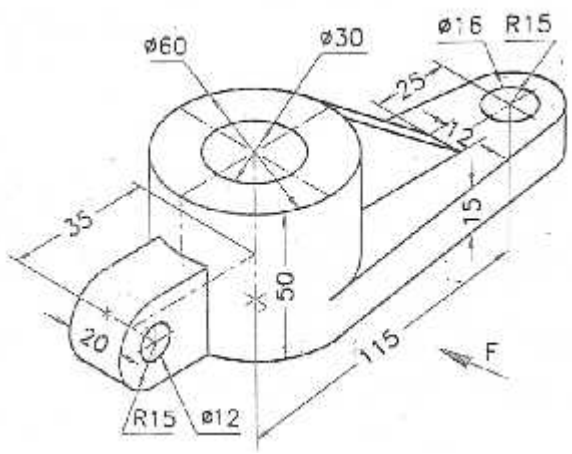

Figure 2

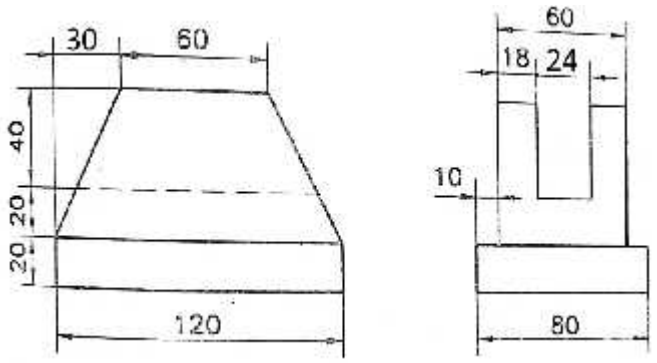

Figure 3