TED (21) -1005 A
(Revision- 2021)

## 2102220009 A

Reg.No	•
Signature.	

## DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/MANAGEMENT/ COMMERCIAL PRACTICE –NOVEMBER -2021.

#### **ENGINEERING GRAPHICS**

(Maximum Marks: 75)

[Time : 3 hours]

[Note:- 1. A2 size drawing sheet to be supplied.

- 2. Missing data if any suitably assumed.
- 3. Sketches are accompanied.
- 4. Dimension as per BIS.
- 5. All drawing should be in first angle projections.]

#### PART-A

Marks

I. Answer all the following questions in one word or sentence or sketch.

(5x1 = 5 Marks)Module Cognitive Outcome level

		Outcome	IC VCI
1	Draw the following types of lines		
	(a) Continuous thin (straight) with zig-zags.	M1.02	U
	(b) Chain thin line.		
2	List any two types of conic sections.	M1.04	U
3	The view obtained on the horizontal plane is called	M2.01	U
4	Draw the symbol of third angle projection.	M3.01	U
5	Give the command used in Auto CAD to draw a straight line or series	M4.04	٨
	of line segment.	1014.04	A

#### PART - B

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

(5x8=40 Marks)

		Module Outcome	Cognitive level
1	Using simple sketches show		
	(a) Chain dimensioning.	M1.03	T T
	(b) Parallel dimensioning.	W11.03	
	(c) Co-ordinate dimensioning.		
2	Draw a regular hexagon of 40 mm side.	M1.04	U
3	Draw an Ellipse by rectangular method, major and minor axes given	M1.04	II
	as 150 mm and 90 mm respectively.	1011.04	
4	Draw an involute of a regular pentagon 30 mm side.	M1.04	U

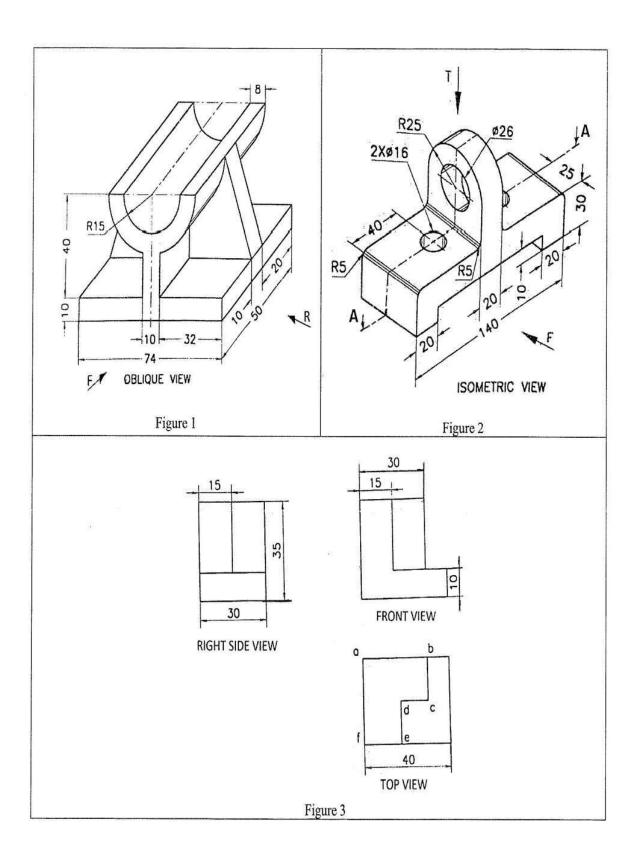
5	Draw the projections of the following points on a common reference		
	line keeping the distance between the projections as 40 mm.		
	(a) Point A is 40 mm above H.P. and 30 mm in front of V.P.	M2.02	U
	(b) Point B is in the V.P. and 40 mm below H.P.		
	(c) Point C is 35 mm below H.P. and 50 mm behind V.P.		
6	A straight-line AB 70 mm long is parallel to both H.P. and V.P. The		
	point A is 30 mm above H.P. and 40 mm in front of V.P. Draw its	M2.03	A
	projections.		
7	The length of the top view of a line PQ which is parallel to V.P.		
	and inclined at 45° to H.P is 60 mm. One end of the line is 20 mm	M2.03	٨
	above H.P. and 30 mm in front of V.P. Draw the projections of the	1012.03	A
	line and determine its true length.		

## PART - C

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

 $(2 \times 15 = 30 \text{ Marks})$ 

		Module Outcome	Cognitive level
1	Oblique view of an open bearing is shown in figure 1. Draw and dimension the front view in the direction of the arrow F and right-side views in the direction of the arrow R.	M3.01	U
2	Figure-2 shows isometric view of a shaft support. Draw and dimension the following views:  (a) Full sectional front view in the direction of the arrow F.  (b) Top view in the direction of arrow T.	M3.02	A
3	Orthographic views of a block are shown in figure 3. Draw the isometric view of the object and dimension it.	M4.02	A



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[Note:- 1. A2 size drawing sheet to be supplied.

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- 4. Dimension as per BIS.
- 5. All drawing should be in first angle projections.]

#### PART-A

Marks

I. Answer all the following questions in one word or sentence or sketch.

(5x1 = 5 Marks)Cognitive Module level Outcome Give the sizes of two commonly used types of set squares. M1.02 U List any three types of scales. M1.05 U The view obtained on the vertical plane is called ...... M2.01 U 4 Mention any two important full sectional views of an object. M3.02 A Identify any two applications of CAD. M4.04 A

## PART - B

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

(5x8=40 Marks)

			Cognitive level
1	Show different elements of dimensioning with the help of a simple	Outcome	ievei
	sketches.	M1.03	U
2	Draw a regular heptagon of side 50 mm.	M1.04	U
3	Draw a Parabola when the distance of focus from the directrix is 8 cm.	M1.04	U
4	Draw an involute of an equilateral triangle of 40 mm side.	M1.04	U

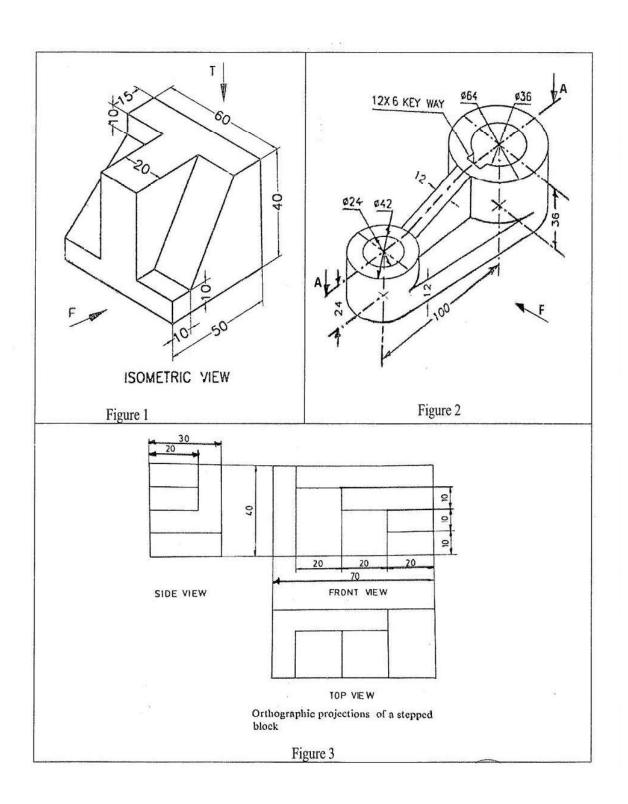
5	Draw the projections of the following points on a common reference		
	line:		
	(a) Point A is 30 mm above H.P. and 20 mm in front of C.P.	M2.02	U
	(b) Point B is 30 below H.P. and 20 mm behind V.P.		
	(c) Point C is 40 mm above H.P. and 20 mm behind V.P.		
6	Draw the projections of a line AB, 90 mm long, inclined at 35		
	degrees to H.P. and parallel to V.P. The line is 45 mm in front of	M2.03	A
	V.P. The lower end A, is 25mm above H.P.		
7	The length of the elevation of a line GH which is parallel to H.P.		
	and inclined at 30° to V.P. is 50 mm. The end G of the line is 15	M2.03	٨
	mm in front of V.P. and 25 mm above H.P. Draw the projections of	1012.03	А
	the line and find its true length.		

# PART - C

III. Answer any two questions. Each question carries 15 marks.

 $(2 \times 15 = 30 \text{ Marks})$ 

		Module Outcome	Cognitive level
1	Isometric view of an object is shown in figure- 1. Draw and dimension the  (a) Front view in the direction of arrow F.  (b) Top view in the direction of arrow T.	M3.01	U
2	Figure-2 shows pictorial views of an object. Draw and dimension the following views:  (a) Full sectional front view in the direction of the arrow F.  (b) Top view.	M3.02	A
3	Orthographic views of an object are shown in figure- 3. Draw the isometric view of the object and dimension it.	M4.02	A



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