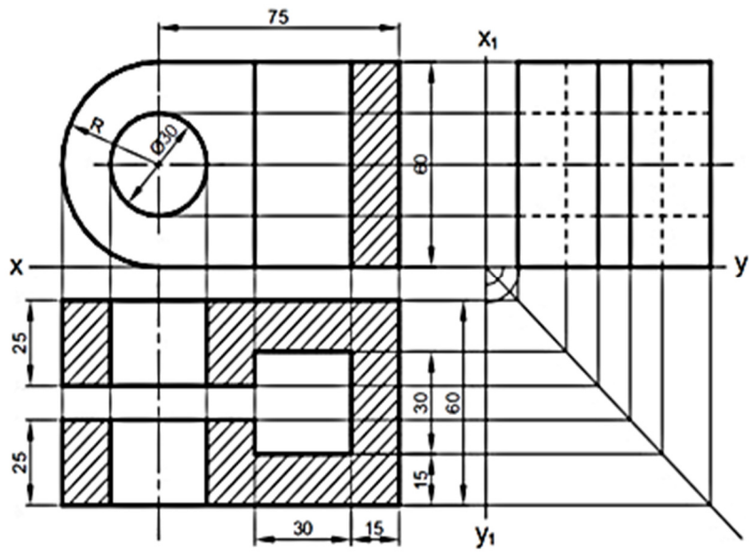
OR	iii.	A pentagonal prism of base side 30 mm and axis 70 mm is resting on its base on the H.P. with a rectangular face parallel to the V.P. It is cut by an auxiliary inclined plane (A.I.P.) whose V.T. is inclined at 45° to the reference line and passes through the mid-point of the axis. Draw the development of the lateral surface of the truncated prism.	**7**	3	3	3
Q.5	i.	Explain any four modify command used in AutoCAD.	**4**	1	4	2
	ii.	Explain any six methods of drawing circle in AutoCAD.	**6**	3	4	3
OR	iii.	State series of AutoCAD steps needed to draw a rectangle of 80mm x 40mm using the following: (a) Line tool (b) Rectangle tool (c) Polygon tool	**6**	3	4	3
Q.6		Attempt any two:				
	i.	Explain any five dimensioning types with command name and example.	**5**	2	5	2
	ii.	Explain Use of LAYERS in AutoCAD.	**5**	2	5	2
	iii.	State a series of AutoCAD command steps to produce orthographic projection-	**5**	2	5	2



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Total No. of Questions: 6 *Total No. of Printed Pages:4*

Enrollment No.....

Faculty of Engineering / Science
End Sem Examination Dec 2024

EN3ES26 / BC3ES11 / SC3ES05 Engineering Graphics

Programme: B.Tech./B.Sc. Branch/Specialisation: All/ Computer Science

Duration: 3 Hrs. **Maximum Marks: 60**

Note: All questions are compulsory. Internal choices, if any, are indicated. Answers of Q.1 (MCQs) should be written in full instead of only a, b, c or d. Assume suitable data if necessary. Notations and symbols have their usual meaning.

			Marks	**BL**	**CO**	**PO**	**PSO**
Q.1	i.	Which of the following describes the theory of Orthographic projections? (a) Projectors are parallel to each other and perpendicular to the plane of projection (b) Projectors are parallel to each other and parallel to the plane of projection (c) Projectors are parallel to each other and oblique to the plane of projection (d) Projectors are perpendicular to each other and parallel to the plane of projection	**1**	1	1	2	
	ii.	A point whose elevation and plan are above xy, is situated in- (a) First angle (b) Second angle (c) Third angle (d) Fourth angle	**1**	1	1	1	
	iii.	If a thin set-square is kept perpendicular to both the horizontal and vertical planes, its true shape is seen in- (a) Horizontal plane (b) Vertical plane (c) Auxiliary inclined plane (d) Profile plane	**1**	2	2	2	
	iv.	A tetrahedron is resting on its face on the H.P. with a side parallel to the V.P. Its front view will be- (a) Equilateral triangle (b) Isosceles triangle (c) Scalene triangle (d) Right-angled triangle	**1**	2	2	2	

v.	Which of the following views provide clarity and reveal internal features of a part? (a) Section views (b) Oblique views (c) Auxiliary views (d) Pictorial views	**1**	2	3	2
vi.	Methods for the development of surfaces are- (a) Parallel line method (b) Radical line method (c) Triangular method (d) All of these	**1**	1	3	1
vii.	Status bar do not contain- (a) snap (b) grid (c) erase (d) polar	**1**	2	4	1
viii.	2-points option is used to draw circles by specifying the- (a) Two end points of a diameter (b) Two end points of a radius (c) Radius and tangent to two objects (d) Centre and two end points of a chord	**1**	1	4	1
ix.	Which command is used to modify dimension styles in AutoCAD? (a) DIMST (b) DIMSTY (c) DIM (d) None of these	**1**	1	5	1
x.	Xline command is used to draw line that- (a) Extends up to a specified point (b) Extends up to another line (c) Extends infinity in one direction only (d) Extends infinity in both directions	**1**	1	5	1
Q.2 i.	Differentiate between first angle and third angle projection.	**2**	2	1	1
ii.	Draw the projections of the following points on a common reference line keeping the distance between their projectors 30 mm apart. (a) Point A is 20 mm below the H.P. and 50 mm in front of the V.P. (b) Point B is in the H.P. and 40 mm behind the V.P. Projections of Points (c) Point C is 30 mm in front of the V.P. and in the H.P.	**3**	2	1	2

iii.	A line PQ, 90 mm long is inclined at 45° the H.P. & its top view makes an angle of 60° with the V.P. The end P is in the H.P. & 12mm in front of the V.P. Draw its front view & find its inclination with the V.P.	**5**	3	1	3
OR iv.	The top view of 75 mm long line RS measures 65 mm while the length of its front view is 50 mm. It's one end R is in the H.P. & 12mm in front of the V.P. Draw the projection of RS & determines its inclinations with the H.P. & the V.P.	**5**	3	1	3
Q.3 i.	Differentiate between a triangular pyramid and a tetrahedron.	**2**	2	2	2
ii.	A rectangular plane of sides 40 mm and 60 mm has a corner on the H.P. and 20 mm in front of the V.P. The surface of the plane is parallel to the V.P. and all the sides are equally inclined to the H.P. Draw its projections and locate the traces.	**3**	2	2	3
iii.	A hexagonal plane ABCDEF of side 30 mm has its corner A in the H.P. The surface of the plane is inclined at 45° to the H.P. and the diagonal containing corner A is inclined at 30° to the V.P. Draw its projections.	**5**	3	2	3
OR iv.	A square pyramid of base side 40 mm and axis 60 mm has a corner of its base in the V.P. A slant edge contained by that corner is inclined at 45° to the V.P. Draw its projections when a plane containing the slant edge and the axis is inclined at 45° to the H.P.	**5**	3	2	3
Q.4 i.	Explain any three method used for obtaining the development of surfaces of solids.	**3**	2	3	3
ii.	A square pyramid of base side 40 mm and axis 60 mm is resting on its base on the H.P. with a side of base parallel to the V.P. Draw its sectional views and true shape of the section, if it is cut by a section plane perpendicular to the V.P., bisecting the axis and inclined at 45° to the H.P.	**7**	3	3	3

Scheme of Marking

MEDI-CAPS UNIVERSITY Knowledge is Power	Faculty of Engineering End Sem Examination August-2024 Engineering Graphics (T)-EN3ES26 (T) Programme: B.Tech. | Branch/Specialisation:

Note: The Paper Setter should provide the answer wise splitting of the marks in the scheme below.

Q.1	i)	(a) Projectors are parallel to each other and perpendicular to the plane of projection. ✓	1
	ii)	(b) second angle ✓	1
	iii)	(d) profiie plane ✓	1
	iv)	(b) isosceles triangle ✓	1
	v)	(a) Section views ✓	1
	vi)	(d) All of them ✓	1
	vii)	(c) erase ✓	1
	viii)	(a) two end points of a diameter ✓	1
	ix)	(b) DIMSTY ✓	1
	x)	(d) extends infinity in both directions ✓	1
Q.2	i.	1 mark for each differentiate ×2	2
	ii.	1 marks for each point for FV, TV and Dimension	3
	iii.	FV 2 marks TV 2 marks Inclination determine 1 marks	5
OR	iv.	FV 2 marks TV 2 marks Inclination determine 1 marks	5
Q.3	i.	1 mark for each differentiate	2
	ii.	FV 1 Mark TV 1 Mark Trace Locate 1 Mark	3
	iii.	First Stage 2 Mark with dimension Second stage 2 Mark Third Stage 1 Mark	5
OR	iv.	First Stage 2 Mark with dimension Second stage 2 Mark Third Stage 1 Mark	5
Q.4	i.	1 mark for each method	3
	ii.	FV 2 Marks TV 2 Marks True shape of Section 2 marks 1 mark for dimensioning	7
OR	iii.	Sectional FV 2 Marks TV 1 mark Development 3 marks 1 mark for dimensioning	7
Q.5	i.	1 Mark for Each command ×4	4
	ii.	1 Mark for Each method ×6	6
OR	iii.	2 marks for Line tool, 2 marks for Rectangle tool and 2 marks for Polygon tool.	6
Q.6		Attempt any two:	
	i.	1 mark for each ×5	5
	ii.	1 mark for each use	5
	iii.	2 marks for FV steps with Dimension 2 marks for TV steps with Dimension 1 Mark for Side View steps	5

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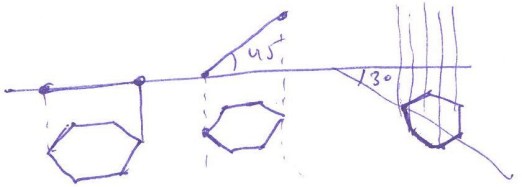
P.T.O.

Answer 3 (iii)



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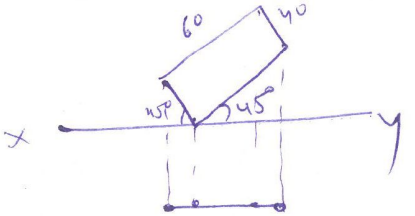

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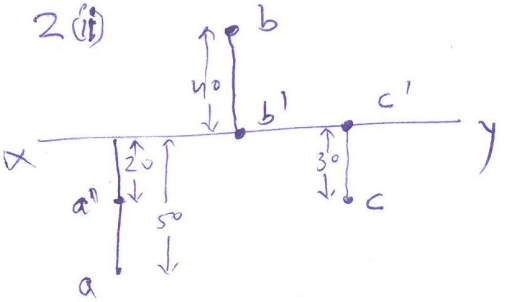

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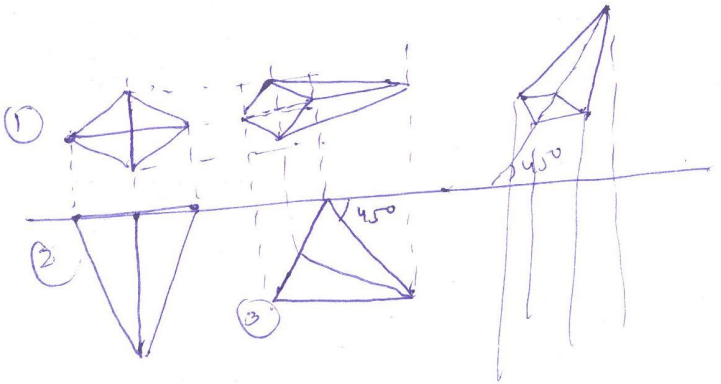

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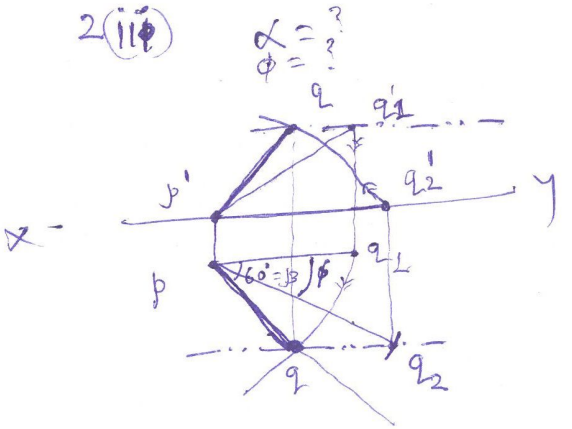

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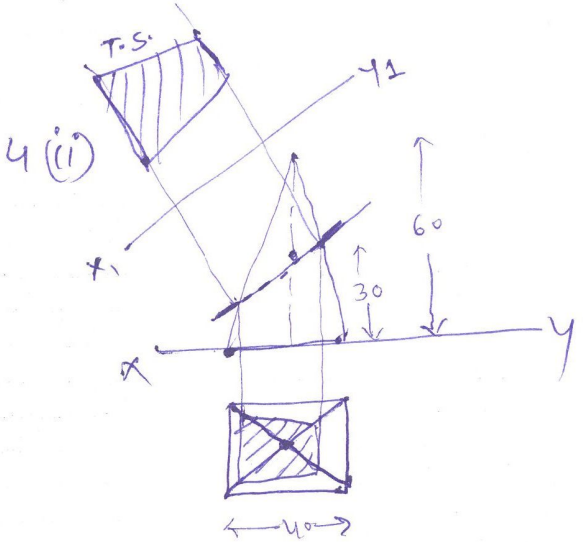

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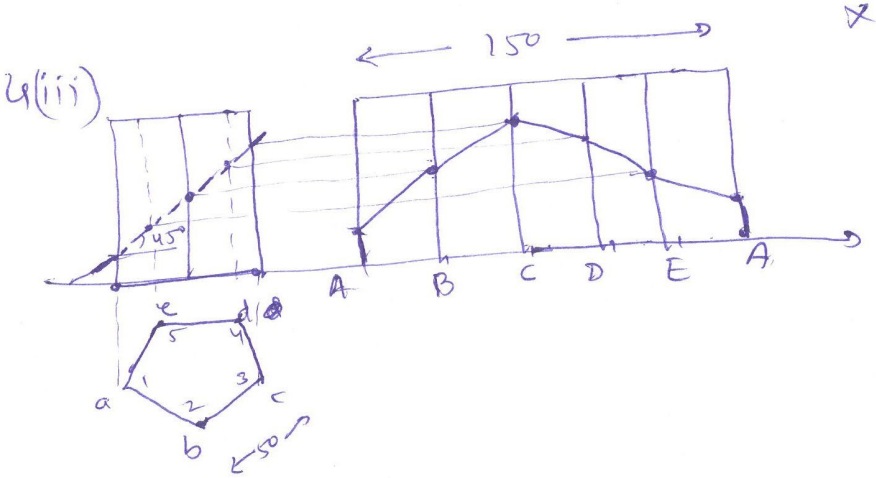
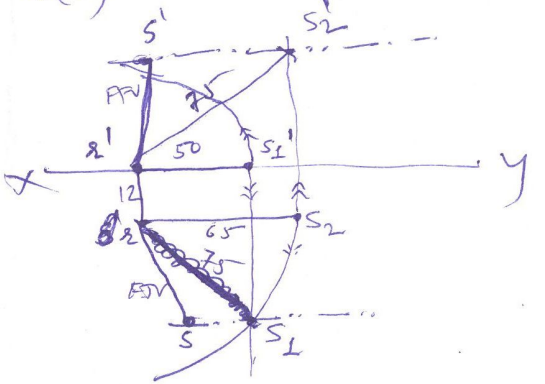


OR

2 (iv)



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