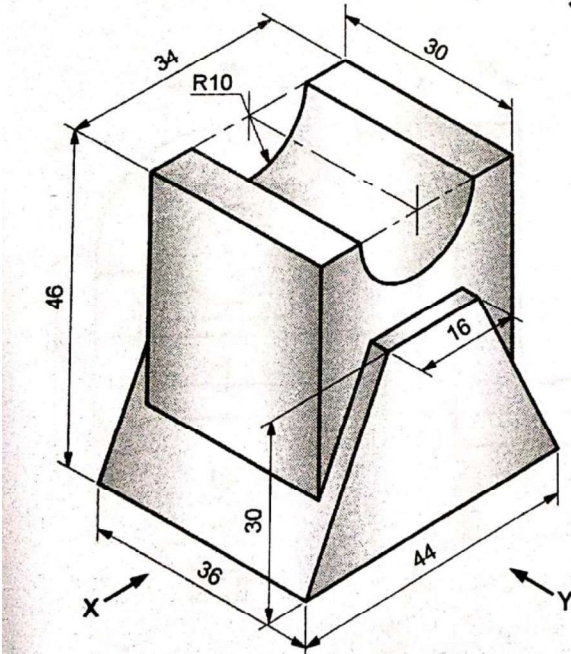
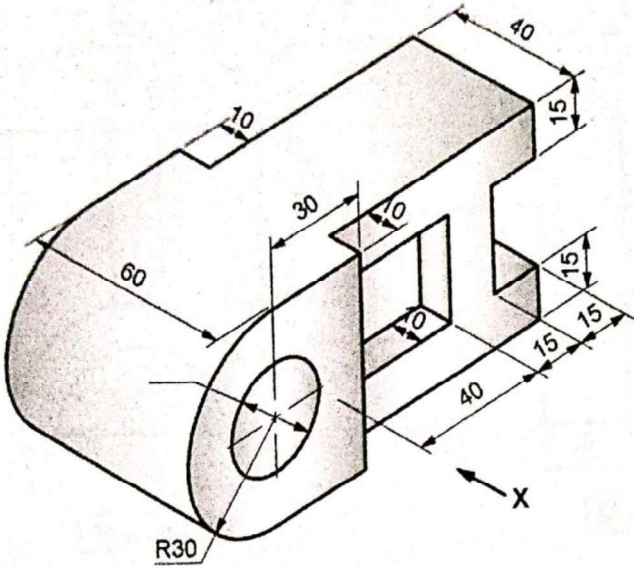


DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE					
Regular/Supplementary Winter Examination – 2024					
Course: F.Y.B.Tech.		Branch :Common to all Branches		Semester : I	
Subject Code & Name: BTES103G Engineering Graphics					
Max Marks: 60		Date:22/01/2026		Duration: 4 Hr.	
Instructions to the Students: 1. Each question carries 12 marks. 2. Question No. 1 will be compulsory and include objective-type questions. 3. Candidates are required to attempt any four questions from Question No. 2 to Question No. 6. 4. The level of question/expected answer as per OBE or the Course Outcome (CO) on which the question is based is mentioned in () in front of the question. 5. Use of non-programmable scientific calculators is allowed. 6. Assume suitable data wherever necessary and mention it clearly.					
				(Level/CO)	Marks
Q. 1	Objective type questions. (Compulsory Question)				12
1	A thin chain line is generally used to represent			CO-I	1
	a)Visible outlines	b) Centre lines	c) Cutting plane lines		
2	The angle between the projector and the plane of projection in orthographic projection is			CO-I	1
	a) 0°	b) 45°	c) 60°		
3	When a point lies exactly on HP, its			CO-II	1
	a) Front view lies on XY line	b) Top view lies on XY line	c) Both views lie on XY line		
4	A plane perpendicular to both HP and VP is called			CO-II	1
	a) Auxiliary plane	b) Profile plane	c) Horizontal plane		
5	If a line is parallel to HP and inclined to VP, its			CO-III	1
	a) Top view shows true length	b) Front view shows true length	c) Both views show true length		

6	The number of faces in a cube is				CO-III	1
	a) 4	b) 6	c) 8	d) 12		
7	The apparent length of a line is always:				CO-II	1
	a) Greater than true length	b) Equal to true length	c) Less than or equal to true length	d) Double the true length		
8	Hatching lines in a sectional view are drawn at an angle of				CO-III	1
	a) 15°	b) 30°	c) 45°	d) 90°		
9	A plane figure parallel to VP will appear in true shape in				CO-IV	1
	a) Top view	b) Side view	c) Front view	d) Auxiliary view		
10	The projection of a straight line perpendicular to VP appears as				Co-IV	1
	a) A point in front view	b) A point in top view	c) A line in top view	d) A circle in front view		
11	The purpose of a cutting plane line is to show				CO-V	1
	a) Hidden edges	b) Centre of object	c) Location of section	d) True length of line		
12	Which solid has only one curved surface?				CO-V	1
	a) Sphere	b) Cube	c) Cone	d) Pyramid		
Q. 2	Solve the following.					12
A)	Draw the regular Hexagon of 40 mm side, use any accurate method.				CO-I	6
B)	What is dimensioning? explain methods of dimensioning with neat sketch.				CO-I	6
Q. 3	Solve, any one of the following.					12

A)	Draw the front view in X- direction, Front view and side view looking in the direction of Y of the following sketch by angle Method of Projection. 	CO-II	12
B) OR	Figure shows, an isometric view, looking in X direction, draw 1. Elevation 2. Plan 	CO-II	12

Q. 4	Solve Any Two of the following.		12
A)	A straight line , 80 mm long , one end ,is 10 mm above HP and 15 mm in front of VP. The line is inclined at 35 degree to HP and 40 degree to VP. Draw projection .	CO-III	6
B)	A hexagonal lamina , 40 mm side , one corner is resting in VP and the diagonal is passing through , resting corner is parallel to HP and 35 degrees inclined to VP. Draw three views.	CO-III	6
C)	An equilateral triangular lamina of 25 mm sides lies with one of its edges on HP such that the surface of the lamina is inclined to HP at 60 deg. The edge on which it rests is inclined to VP at 60deg. Draw its projections.	CO-III	6
Q. 5	Solve Any Two of the following.		12
A)	A pentagonal Prism having a base with 30 mm side and 60mm long Axis, has one of its bases in the VP. Draw its projections When (a) rectangular face is parallel to and 15 mm above the HP (b) A rectangular face perpendicular to HP and (c) a rectangular face is inclined at 45° to the HP.	CO-IV	6
B)	A right circular cone , base 50 mm diameter and length of axis 70 mm, the axis of cone is inclined by 45 degrees to HRP and parallel to FRP. Draw projection.	CO-IV	6
C)	A square prism of base side 30 mm and height 60 mm rests on the HP on one of its ends with two of its rectangular faces equally inclined to the VP. It is cut by a plane perpendicular to the VP and inclined at 60° to the HP meeting the axis at 15 mm from the top. Draw its front view, sectional top view and the true shape of the section	CO-V	6
Q. 6	Solve Any One of the following.		12
A)	Figure shows , two orthographic views of an object , draw isometric view.	CO-V	6

B)	Figure shows , two orthographic views of an object , draw isometric view.	CO-V	6
	*** End ***		