Roll No. | | | | | | | | | | |

ANNA UNIVERSITY (UNIVERSITY DEPARTMENTS)

B.E. /B. Tech / B. Arch (Full Time) - END SEMESTER EXAMINATIONS, NOV / Dec 2024

Common to all Branches
Semester I

GE5151 - ENGINEERING GRAPHICS (Regulation 2019)

Time: 3 hrs. Max. Marks: 100

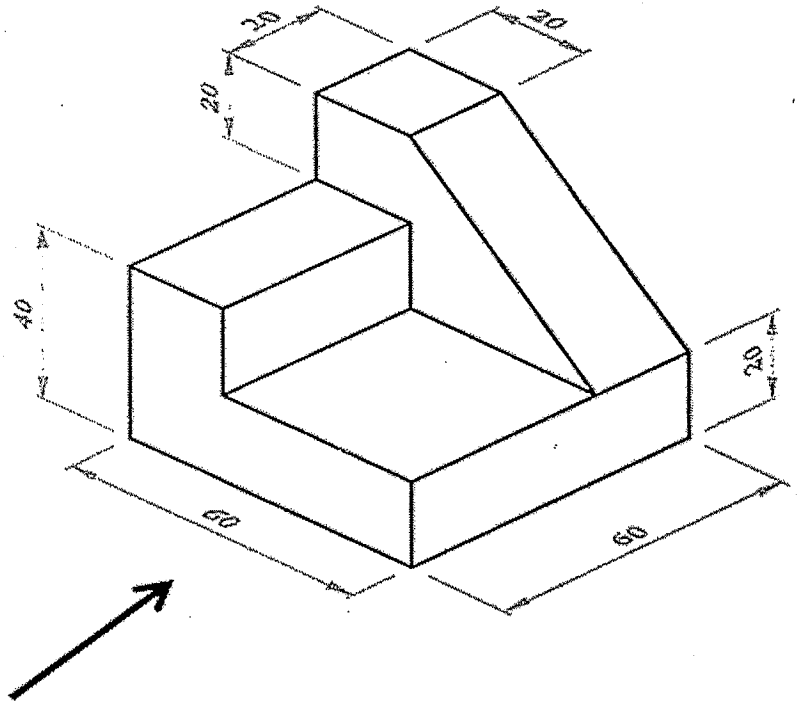
CO1	Drawing free hand sketching of basic geometrical shapes and multiple views of objects
CO2	Drawing orthographic projections of lines and planes
CO3	Drawing orthographic projections of solids
CO4	Drawing development of the surfaces of objects
CO5	Drawing isometric and perspective views of simple solids

BL – Bloom's Taxonomy Levels
(L1-Remembering, L2-Understanding, L3-Applying, L4-Analysing, L5-Evaluating, L6-Creating)

PART- A (10x20=100Marks)
(Answer all Questions)

Q. No.	Questions	Marks	CO	BL
1 a)	Construct the parabola if the distance between the focus and the directrix is 50 mm. Draw a tangent and normal at any point on the curve.	20	1	L2
	(OR)			
1 b)	Draw the front view, top view and right side view for the component shown in figure 1 from the arrow side	20	1	L3
2 a)	A line AB of true length 80 mm has its end point 'A', 20 mm above HP and 20 mm in front of VP. The line is inclined to HP by 45° and VP by 30°. Draw its projections and measure the apparent length of Top view.	20	2	L5
	(OR)			
2 b)	A square plane of side 40 mm resting on one of its edges on HP, such that its surface is inclined to HP by 40° and the resting edge is inclined to VP by 35°. Draw its projections.	20	2	L3
3 a)	A cylinder of base circle diameter 50 mm and length 80 mm resting on HP on a point on the circumference of the base such that its base is inclined to HP by 55° and the top view of the axis is inclined to VP by 40°. Draw its projections.	20	3	L3
	(OR)			
3 b)	A triangular prism of equilateral base side 30 mm and axis height 60 mm resting on VP on one of its base sides such that its axis is	20	3	L3

	inclined to VP by 30° and the front view of the axis is inclined to HP by 50°. Draw its projections.			
4 a)	A cone of base circle diameter 55 mm and axis height 70 mm is resting on HP on its base. A section plane perpendicular to VP and inclined to HP at an angle of 45^0 bisects the axis of the solid. Draw the sectional views and true shape of the section.	20	4	L3
	(OR)			
4 b)	A cone with base diameter 50 mm and axis length 65 mm is cut by a section plane passing through the axis of the cone at distance of 25 mm from the apex, inclined at 40^0 to the HP and perpendicular to VP. Draw the development of the lateral surface of the truncated lower half of the cone.	20	4	L3
5 a)	A square slab of dimension 60 mm × 60 mm × 20 mm is resting on HP on its square face such that two of its base edges are parallel to VP. A cylinder of base circle 50 mm and length 60 mm rests on top of the slab with their axis coinciding. Draw the isometric view of the combined solids.	20	5	L3
	(OR)			
5 b)	A cube of sides 40 mm is resting on the ground plane such that one of its square faces is parallel to and 10 mm behind the picture plane. The central plane is located 70 mm to the left of the axis of the cube. The station point is 50 mm in front of picture plane and 60 mm above the ground plane. Draw its perspective projection.	20	5	



All dimensions are in mm

Figure 1