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

ANNA UNIVERSITY (UNIVERSITY DEPARTMENTS)

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

Common to all Branches
Semester 2
GE3155 – ENGINEERING DRAWING
(Regulation 2023)

Time: 3hrs Max. Marks: 100

On successful completion of this course, the student will be able to

CO1 Draw conic curves, cycloids and involutes
CO2 Draw orthographic projections of points, lines and planes
CO3 Draw orthographic projections and free hand sketches of solids
CO4 Draw sectional views of the objects and development of surfaces.
CO5 Draw 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 (5x20=100Marks)
(Answer all Questions)

Q. No.	Questions	Marks	CO	BL
1 (a)	A fixed point **F** is **50** mm from a fixed straight line. Draw the locus of the point **Q** moving in such a way that its distance from the fixed straight line is equal to its distance from **F**. Name the curve and draw a normal and tangent at any point on the curve.	**20**	1	3
	OR			
1 (b)	Draw the locus of a point on the periphery of the ring of diameter 50 mm which rolls on a horizontal surface for one full rotation.	**20**	1	3
2 (a)	The end **P** of a line **PQ** is 35 mm in front of **VP 30** mm above HP. The line is inclined at **40°** to **HP**. Its top view is **65** mm long inclined at **40°** to XY. Draw the projections of the straight line and find its true length.	**20**	2	3
	OR			
2 (b)	A hexagonal lamina of side **30** mm rests on one of its edges on **HP**. This edge is inclined at an angle of **45^0** to **VP**. The surface of the lamina is inclined **60°** to **HP**. Draw its projections.	**20**	2	3
3 (a)	A right pentagonal pyramid of base side **30** mm and altitude **60** mm rests on one of its edges of the base in **HP**; the base being tilted up until the highest corner in the base is **30** mm above **HP**. Draw the elevation of the pyramid when the edge on which it rests is made inclined **45^0** to **VP**.	**20**	3	4
	OR			
3 (b)	Draw the front view, top view and right side view for the component shown in **Figure 1** in the arrow direction with dimensions.	**20**	3	4
4 (a)	A cylinder of base diameter **50** mm and height **60** mm rests on its base on **HP**. It is cut by a plane perpendicular to **VP** and inclined at **45°** to **HP**. The cutting plane meets the axis at a distance **15** mm from top to the base. Draw the sectional plan and true shape of section.	**20**	4	4
	OR			
4 (b)	A right circular cone, diameter **50** mm base and **60** mm height, rests on its base on **HP**. A section plane perpendicular to **VP** and inclined to **HP**	**20**	4	4

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	at **45°** cuts the cone bisecting its axis. Draw projections of the truncated cone and develop its lateral surface.			
5 (a)	A hexagonal prism of base side **20** mm and height **15** mm is kept on top of a **50** mm long cylinder of diameter **25** mm. The axes of the two solids coincide. Draw the isometric view of the combined solids.	**20**	5	3
	OR			
5 (b)	A cylinder **30** mm diameter and **40** mm long is lying on the ground with its axis perpendicular to the picture plane. The nearest point of contact with the ground is **60** mm on the left of the station point and **10** mm from the **PP**. The station point is **40** mm above the ground and **60** mm in front of the **PP**. Draw the perspective view of the cylinder.	**20**	5	3

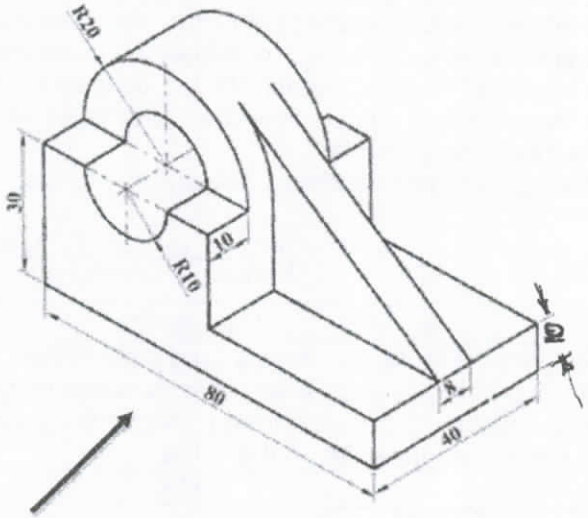

Figure1