Q. Code:951820

Reg. No. | | | | | | | | | | | | | |

B.E. / B.TECH. DEGREE EXAMINATIONS, MAY 2024

Second Semester

ME22252 - FUNDAMENTALS OF ENGINEERING GRAPHICS

(Mechanical Engineering)

(Regulation 2022)

TIME: 1.30 HOURS **MAX. MARKS: 50**

COURSE OUTCOMES	STATEMENT	RBT LEVEL
Upon the successful completion of the course, the students will be able to		
CO 1	Construct conic sections and as per drawing standards.	**2**
CO 2	Obtain orthographic projections of lines and plane surfaces and simple solids in various positions.	**3**
CO 3	Obtain projections of simple and hollow solids.	**3**

PART- A (15 x 2 = 30 Marks)

(Answer all Questions)

		Marks	CO	RBT LEVEL
1. (a)	Draw the epicycloid of a circle of 60 mm diameter which rolls outside on another circle whose diameter is 160 mm for one revolution. Draw a tangent and normal at a convenient point on the curve.	**(15)**	**1**	**3**
	(OR)			
(b)	A string is wound around the circumference of the regular hexagon of side 40 mm completely. Holding one end free, the string is unwound completely such that the string always tightly stretched. Draw the involute of the curve.	**(15)**	**1**	**3**
2. (a)	A hexagonal prism of base edge 30 mm and axis 70 mm long has one of rectangular faces inclined at 45^0 to VP. Draw its projections, when the base edge on this face lies on VP and perpendicular HP.	**(15)**	**3**	**3**
	(OR)			
(b)	A square pyramid of 30 mm base edge and axis 70 mm long has a corner of the base on VP. Draw its projections, when the axis is inclined to VP, and the plane containing the corner and the axis is horizontal	**(15)**	**3**	**3**

PART- C (1 x 20 = 20 Marks)

(Q.No.16 is compulsory)

		Marks	CO	RBT LEVEL
3.	A rope that forms a straight line AB has its one end A tied to a hook on the ground and 25 mm in front of a vertical wall. The other end B is tied to a pole which is 65 mm in front of vertical wall and the rope is inclined 30^0 to both the vertical wall and the ground. Draw the projections of the line joining the rope and the length of the rope.	**(20)**	**2**	**3**

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