

Reg. No.

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**B.E. / B.TECH. DEGREE EXAMINATIONS, MAY 2023**

Second Semester

**ME22252 – FUNDAMENTALS OF ENGINEERING GRAPHICS***(Electrical and Electronics Engineering)***(Regulation 2022)****TIME: 1 HOUR 30 MINUTES****MAX. MARKS: 50**

COURSE OUTCOMES	STATEMENT	RBT LEVEL
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 (2 x 15 = 30 Marks)**

		Marks	CO	RBT LEVEL
1. (a)	(i) Draw a Parabola when the distance between the directrix and the focus is 45mm. Draw a tangent and normal at a point M on the curve.	(10)	1	2
	(ii) Draw a line of 60mm long and divide it into 7 equal parts.	(5)	1	2
<b>(OR)</b>				
(b)	(i) Explain with a diagram, how a parabola is obtained while performing a conic section.	(5)	1	2
	(ii) Trace the locus of the free end of an inelastic string of 125mm wound on a pentagon. Draw a tangent and normal at any point on the curve.	(10)	1	2
2. (a)	(i) Mark the projections of the following points on a common reference line. i) A – 25mm above HP and 35mm in front of VP ii) B – 30mm below HP and 45mm above VP	(5)	2	3
	(ii) A line CD measuring 80mm is inclined at an angle of 30° to HP and 45° to VP. The point C is 20mm above HP and 30mm in front of VP. Draw the projections of the straight line.	(10)	2	3
	<b>(OR)</b>			
(b)	A regular pentagon plate of side 40mm is placed on one side on HP, such that the surface is inclined at 45° to HP and perpendicular to VP. Draw its projections and traces.	(15)	2	3

**PART- B (1 x 20 = 20 Marks)***(Q.No.3 is compulsory)*

		Marks	CO	RBT LEVEL
3.	Draw the hexagonal pyramid of base side 30mm and axis 45mm long that rests with one of its corners on HP, such that the base is inclined at an angle of 60° to HP and one side of the base is perpendicular to VP. Draw its projections.	(20)	3	3

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