Register No.: …………………………… Name: …………………………………………………

SAINTGITS COLLEGE OF ENGINEERING (AUTONOMOUS)
(AFFILIATED TO APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY, THIRUVANANTHAPURAM)
SECOND SEMESTER B.TECH DEGREE EXAMINATION (Special), AUGUST 2021

Course Code: **20EST110**

Course Name: **Engineering Graphics**

Max. Marks: **100**   **Duration: 3 Hours**

Retain Construction lines. Show necessary dimensions.
(Answer any ONE question from each module. Each question carries 20 marks)

MODULE I

		CO	Marks
1.	A line PQ 70 mm long is inclined at 30^0 to HP and 40^0 to VP. The end P is in HP and 40 mm in front of VP. Draw the projections and determine the apparent angle of inclinations. Also locate the traces	[1]	(20)

OR

		CO	Marks
2.	A line AB of 90 mm long is inclined at 30^0 to HP. Its end A is 12 mm above HP and 20 mm in front of VP. Its front view measures 65 mm. Draw the projections and determine its inclination with VP. Also locate the traces	[1]	(20)

MODULE II

		CO	Marks
3.	A square pyramid 30 mm base edge and 60 mm height is on HP with one of its base edges so that the axis makes 45^0 with HP and the resting edge making 30^0 with VP. Draw the projections	[2]	(20)

OR

		CO	Marks
4.	A pentagonal prism of base edge 30 mm and height 70 mm is resting on HP on its base edge such that the rectangular face containing that edge is inclined 45^0 to HP and the base edge on which it is resting is inclined 30^0 to VP	[2]	(20)

MODULE III

		CO	Marks
5.	A hexagonal prism of 20 mm base and 60 mm height resting on its base on HP such that two base edges are perpendicular to VP. It is cut by a plane which is inclined at 30^0 to HP and perpendicular to VP. This plane passes through the midpoint of the axis of the prism. Draw the sectional top view and true shape of the section	[3]	(20)

OR

		CO	Marks
6.	An ant starts moving from a point on the circumference of the bottom base of a conical jar, (base diameter 50 mm and height 60 mm) and it moves around through the surface of the jar and reaches the starting point. Show the shortest path of the ant in the front view of the jar. Also find its shortest distance travelled by the ant.	[3]	(20)

MODULE IV

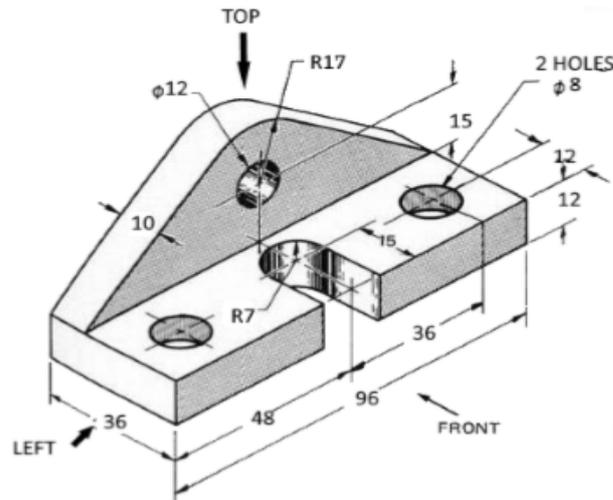|		CO	Marks
7.	Draw the isometric view of a pentagonal pyramid, side of base 30 mm and height 70 mm resting centrally on the top of a cylinder of diameter 100 mm and height 40 mm	[4]	(20)

OR

		CO	Marks
8.	A vertical cylinder of base diameter 40 mm and height 60 mm is resting on ground. A sphere of diameter 30 mm resting centrally over the top face of cylinder. Draw the isometric projection of the combination	[4]	(20)

MODULE V

		CO	Marks
9.	A rectangular pyramid base 35 mm x 50 mm and axis 70 mm long is resting on its base on the ground plane such that the entire solid is behind the picture plane and one of its longer edges of base is touching the picture plane. Draw the perspective view of the pyramid, if the station point is 60 mm in front of picture plane, 50 mm above ground plane. The central plane passes 50 mm to the left of the axis of the pyramid	[4]	(20)

OR

		CO	Marks
10.	Draw the orthographic views (Elevation, Plan and Left side view) with dimensions of the object shown in figure below	[5]	(20)

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