Q.P. Code: 20ME0301b

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

SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR

(AUTONOMOUS)

B.Tech I Year I Semester Regular & Supplementary Examinations May-2022

ENGINEERING GRAPHICS

(Common to EEE & ME)

Time: 3 hours Max. Marks: 60

(Answer all Five Units **5 x 12 = 60** Marks)

UNIT-I

1	Construct an ellipse, with distance of the focus from the directrix as 50 mm and eccentricity as 2/3. Also draw normal and tangent to the curve at a point 40 mm from the directrix.	**L3**	**12M**

OR

2	Draw an Epi-cycloid of rolling circle of diameter 40 mm which rolls outside another circle (base circle) of 150 mm diameter for one revolution and construct a tangent and normal at any point on the curve.	**L6**	**12M**

UNIT-II

3	A point A is 20mm above the HP and 50mm in front of the VP. Another point B is 40mm below the HP and 15mm behind the VP. The distance between the projectors of the points, measured parallel to xy, is 75mm. Draw the projections of the points. Draw lines joining their FVs and TVs.	**L6**	**12M**

OR

4	A line AB of 100mm length is inclined at an angle of 30^0 to HP and 45^0 to VP. The point A is 15mm above HP and 20mm in front of VP. Draw the projections of the line.	**L6**	**12M**

UNIT-III

5	An equilateral triangular plane ABC of side 40mm has its plane parallel to VP and 20mm away from it. Draw the projections of the plane when one of its sides is (i) perpendicular to HP (ii) parallel to HP and (iii) inclined to HP at an angle of 45^0.	**L6**	**12M**

OR

6	A cylinder of base diameter 5omm and axis 70 mm has a generator in the VP and inclined at 45^0 to the HP. Draw its projections	**L6**	**12M**

UNIT-IV

7	A pentagonal pyramid with edge of base 25 mm and axis 65 mm long, its base is resting on HP. It is cut by a section plane, inclined at 60^0 to HP and perpendicular to VP at bisect the axis. Draw the projections and obtain the true shape of the section.	L6	12M

OR

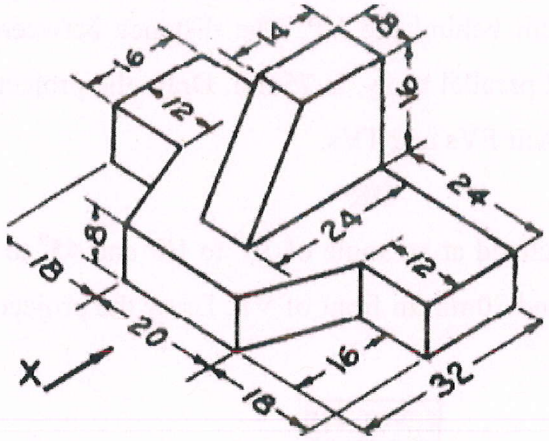
8	A cylinder of diameter of base 40 mm and axis 55 mm long, is resting on its base on HP. It is cut by a section plane, perpendicular to VP and inclined at 45^0 to HP. The section plane is passing through the top end of an extreme generator of the cylinder. Draw the development of the lateral surface of the cut cylinder.	L6	12M

UNIT-V

9	Draw the isometric view of a cylinder of base diameter 50mm and axis 60 mm the axis of the cylinder is perpendicular to the HP.	L6	12M

OR

10	Draw three views of the blocks shown pictorially in figure according to first angle projection.	L6	12M



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