Reg. No:

SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR
(AUTONOMOUS)
B.Tech I Year I Semester Supplementary Examinations August-2022
ENGINEERING GRAPHICS
(Common to ECE,CSE & CSIT)

Time: 3 hours   Max. Marks: 60

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

UNIT-I

1 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. Draw a tangent and normal at any point on the curve.   **12M**

OR

2 The vertex of a hyperbola is 60 mm from its focus. Draw the curve, if the eccentricity is 3/2. Draw a normal and a tangent at a point on the curve, 75 mm from the directrix.   **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   **12M**

OR

4 A line AB, 50mm long, has its end A away from the HP and VP than end B. The line is inclined to the HP at 30^0 and to the VP at 45^0. Draw the projections if end A is 35mm above the HP and 50mm in front of the VP.   **12M**

UNIT-III

5 A regular hexagonal plane of 45 mm side has a corner on HP, and its surface is inclined at 45^0 to HP. Draw the projections, when the diagonal through the corner, which is on HP makes 30^0 with VP.   **12M**

OR

6 A pentagonal prism of base side 30mm and axis 60mm has one of its rectangular faces on the HP and the axis inclined at 60 degree to the VP. Draw its projections.   **12M**

UNIT-IV

7 A cube of side 40 mm, is resting on HP on one of its faces, with a vertical face inclined at 30 degree to VP. It is cut by a section plane inclined at 45 degree to HP and passing through the axis at 8 mm from the top surface. Draw the projections of the solid and also show the true shape of the section.   **12M**
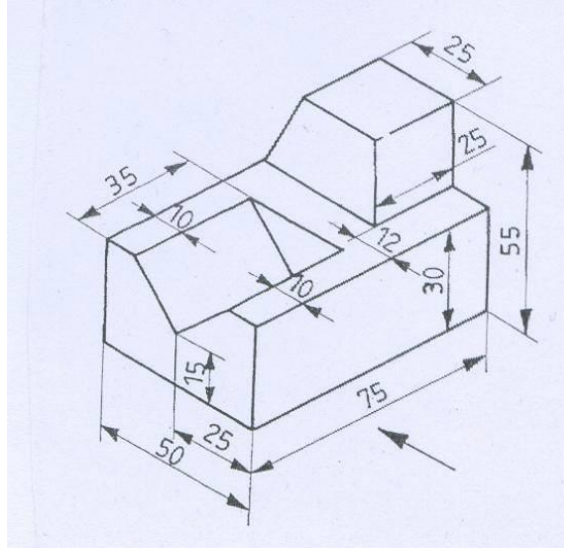
OR

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 degree 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.   **12M**

UNIT-V

9 Draw the isometric projection of a pentagonal prism of base side 35 mm and axis 60mm. **12M** The prism rests on its base on the HP with an edge of the base parallel to the VP.

OR

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

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