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SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR
(AUTONOMOUS)**B.Tech I Year I Semester Supplementary Examinations Nov/Dec 2019****ENGINEERING GRAPHICS**

(ECE, CSE & CSIT)

Time: 3 hours

Max. Marks: 60

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

- 1 a** A point P is 30 mm and 50 mm respectively from two straight lines which are at right angles to each other. Draw the rectangular hyperbola from p within 10 mm distance from each line. **9M**
- b** Draw the involute of a square of side 25 mm. **3M**

OR

- 2 a** 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. **9M**
- b** Draw the involute of an equilateral triangular of side 20 mm. **3M**

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 CD 75mm long is inclined at an angle of 45° to HP and 30° to VP. The point P is 15mm above HP and 20mm in front of VP. Draw the projections of the line. **12M**

UNIT-III

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

OR

- 6** A square pyramid, base 40 mm side and axis 70 mm long, is freely suspended from one of the corners of its base. Draw its projections, when the axis as a vertical plane makes an angle of 45° with the VP. **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**

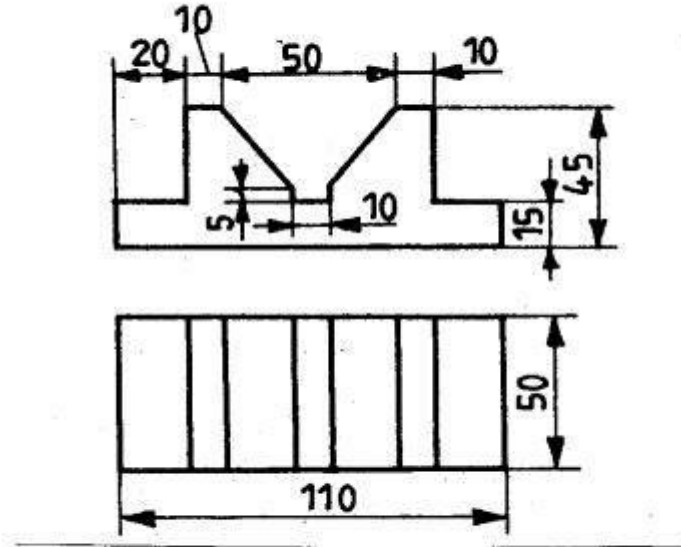
OR

- 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

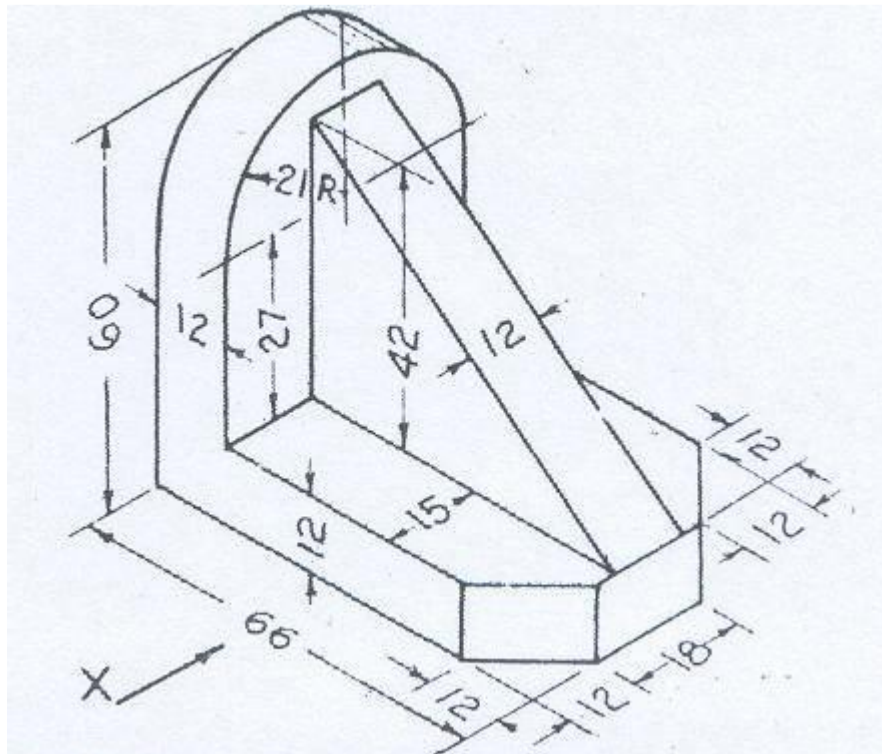
9 Draw the isometric view of the following sketch.

12M



OR

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



*** END ***