Q.P.	Code:	16ME302
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Reg. No:

SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR

(AUTONOMOUS)

B.Tech I Year I Semester Supplementary Examinations August-2021 ENGINEERING GRAPHICS

(Common to ECE, CSE & CSIT)

Time: 3 hours

Max. Marks: 60

(Answer all Five Units $5 \times 12 = 60$ Marks)

UNIT-I

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.

OR

2 Draw the involute of a circle of side diameter 50 mm. Draw a tangent and normal to the 12M curve at a distance of 100 mm from the center of the circle

UNIT-II

- **3** Draw the projections of the following points, keeping the distance between the **12M** projectors as 25mm on the same reference lines.
 - A 20mm above HP and 30mm in front of VP.
 - B 20mm above HP and 30mm behind VP.

C – 20mm below HP and 30mm behind VP.

- D 20mm below HP and 30mm in front of VP.
- E On HP and 30mm in front of VP.
- F On VP and 20mm above HP.

OR

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

UNIT-III

5 A regular hexagonal plane of 45 mm side has a corner on HP, and its surface is inclined 12M at 450 to HP. Draw the projections, when the diagonal through the corner, which is on HP makes 300 with VP.

OR

6 A pentagonal prism of base side 30mm and axis 60mm has one of its rectangular faces 12M on the HP and the axis inclined at 600 to the VP. Draw its projections.

UNIT-IV

7 A cube of side 40 mm, is resting on HP on one of its faces, with a vertical face
12M inclined at 300 to VP. It is cut by a section plane inclined at 450 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.

OR

8 A cylinder of diameter of base 40 mm and axis 55 mm long, is resting on its base on 12M HP. It is cut by a section plane, perpendicular to VP and inclined at 450 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.

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UNIT-V

9 Draw the isometric view of a cone of base diameter 50mm and axis 60 mm. The cone 12M has its base on (a) HP. (b) VP.

OR

10 Draw the front view, top view and left side view of the block shown in figure. Assume all dimensions are in "mm'.

12M

R16



*** END ***

- . On HP and 20mm or inner of VP.
 - 10 mends constS has 37 aQ -

80

- A finite CD/ Draw long is incleased at an angle of 45° to 11° and 30° to vP. The paint P is "Lbd. Efficiency hit and 30mmin forfact of VP. Oney the projections of the line.
 - A segniter intergrated plates of 45 time side interaction Hill, and its verfloot it latilized. 123 of 450 to HP. Dates the projections, where the disgonal through the corner, which is an HP makes 300 with VP.

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A pentagonal prime of basis side 30mm and axis 60mm has one of its recomputer from 12.16 on the HP and the axis intribued at 600 to the VP. Draw his prejections.

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A only of side 40 error to centing on HP on case of its freeze, while a ventrol firce 12 inclined at 500 to VP. It is cut by a acclicat plane inclined at 450 to HP and pracing drough the axis at 8 pms (hop the top partner. Unaw the propertions of the solid and also show the tote thrate of the sociara

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HP It is era by a totalistic of takes planes perpendicular to VP and forbinant of 50 m HP. The section plane is preving filtracials the tap and sal an entrance parameter of the cythedre.

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