

Reg. No. 

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Q.P. Code: 16ME302

**R16**

**SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR  
(AUTONOMOUS)**

**B.Tech I Year I Semester (R16) Regular & Supplementary Examinations Dec 2017  
ENGINEERING GRAPHICS**

**(Common to CSIT & CSE)**

Time: 3 hours

Max. Marks:60

(Answer all Five Units 5 X 12 = 60 Marks)

**UNIT-I**

- 1 Point P is 40 mm and 30 mm from horizontal and vertical axes respectively. Draw Hyperbola through it. 12M

**OR**

- 2 Draw locus of a point on the periphery of a circle which rolls from the inside of a curved path. take diameter of rolling circle 50 mm and radius of directing circle (curved path) 75 mm. 12M

**UNIT-II**

- 3 a Draw the projections of the following points, keeping the distance between the projectors as 25mm on the same reference lines.  
a) Point 'A' is 20mm above HP and 30mm in front of VP.  
b) Point 'B' is 20mm below Hp and 40mm behind VP.  
c) Point 'P' is 10mm above HP and 30mm Behind VP.  
d) Point 'C' is 45mm below HP and 35mm in front of VP. 5M  
b Draw the projections of straight line AB 60 mm long parallel to HP and inclined at an angle of  $40^\circ$  to V.P. The end A is 30 mm above H.P and 20 mm in front of V.P. 7M

**OR**

- 4 A line AB has its end A 20mm above HP and 25mm in front of VP. The other end B is 45mm above HP and 40mm in front of VP. The distance between end projectors is 60mm. Draw its projections. Also find the true length, true inclinations of the line with HP and VP and mark the traces. 12M

**UNIT-III**

- 5 a A regular pentagon of 25mm side has one side on the ground. Its plane is inclined at  $45^\circ$  to the HP and perpendicular to the VP. Draw its projections and show its traces. 6M  
b A  $30^\circ - 60^\circ$  set square of longest side 100 mm long, is in VP and  $30^\circ$  inclined to HP while it's surface is  $45^\circ$  inclined to VP. Draw it's projections. 6M

**OR**

- 6 A cube of edge 35mm is resting on H.P on one of its corners with a solid diagonal perpendicular to V.P. Draw the porjections of the cube. 12M

**UNIT-IV**

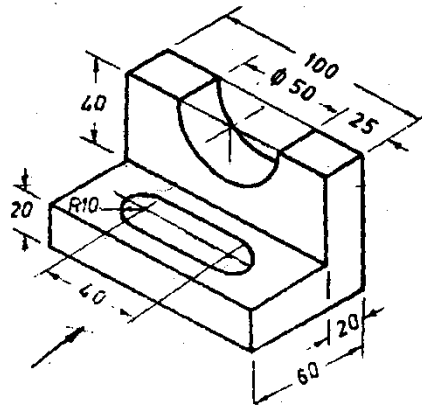
- 7 A cone, 50 mm base diameter and 70 mm axis is standing on its base on HP. It is cut by a section plane  $45^\circ$  inclined to HP through base end of end generator. Draw projection of front and top sectional views and true shape of section. 12M

**OR**

- 8 A hexagonal pyramid with side of base 30 mm and height 75 mm stands with its base on HP and an edge of the base parallel to V.P. It is cut by a plane perpendicular to V.P, inclined at  $45^\circ$  to H.P and passing through the mid-point of the axis. Draw the (sectioned) top view and develop the lateral surface of the truncated pyramid. 12M

**UNIT-V**

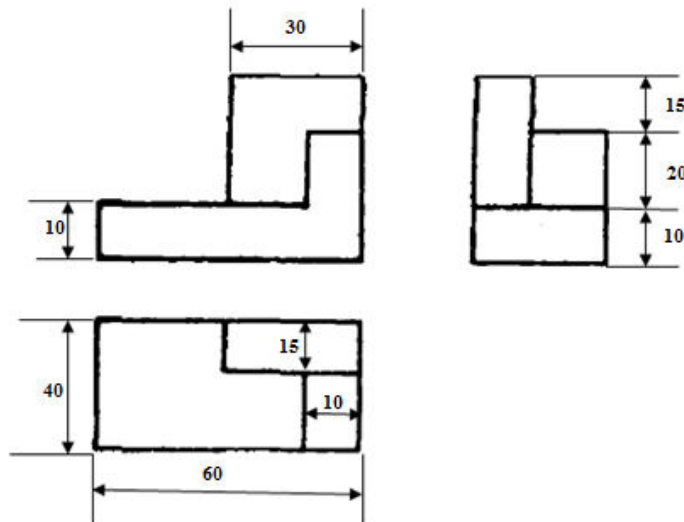
- 9 Convert the given pictorial view into orthographic views of F.V., T.V. & L.S.V.



12M

**OR**

- 10 Convert the given orthographic view into isometric view.



12M

**\*\*\* END \*\*\***