Q.P. Code: 20ME0301a



SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR (AUTONOMOUS) B.Tech I Year II Semester Regular Examinations November-2021

ENGINEERING GRAPHICS

(Common to CSE & CSIT)

Time: 3 hours

front views are 80mm & 90mm.

Max. Marks: 60

KZU

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

UNIT-I

1	a Construct a parabola with base 120mm and length of the axis 60mm by using	L3	6M
	Rectangle method.		
	b Draw the involute of a regular pentagon of side 20 mm.	L3	6M
	OR		
2	Construct a hypo cycloid of a circle of 50 mm diameter, which rolls inside another	L3	12M
	circle of 180 mm diameter for one revolution counter clockwise.		
	UNIT-II		
3	A point E is 20 mm below HP and 30mm behind VP. Another point F is in front of	L2	12M
	VP and above the HP. The distance between the projectors of the points is 60mm.		
	Determine the point F and Point F if the length of line joining their top views and		

OR

4 A Line EF 85mm long has its end E is 25mm above HP and 20mm in front of VP. L3 12M The top and front views of the line have lengths of 55mm and 70mm respectively. Draw the projections of the line and Find its true inclinations with VP & HP.

UNIT-III

5 An equilateral triangular plane ABC of side 40mm has its plane parallel to VP and L3 12M 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 45⁰.

OR

6 A pentagonal prism of base side 30mm and axis 60mm has one of its rectangular L3 12M faces on the HP and the axis inclined at 60° to the VP. Draw its projections.

UNIT-IV

7 A square pyramid of base 40 mm and axis 60 mm long, Its base lies on VP with its L3 12M axis parallel to HP. A cut sectional plane, 60° to VP and it pass 10mm away from the axis. Draw the projections sectional front view.

OR

8 A pentagonal pyramid, side of base 30 mm and height 52 mm, stands with its base on L3 12M HP and an edge of the base is parallel to VP. It is cut by a plane perpendicular to VP, inclined at 40⁰ to HP and passing through a point on the axis, 32 mm above the base. Draw the development of the lateral surface of the truncated pyramid

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9 Draw the isometric projection of a hexagonal prism of base side 30 mm and axis L3 12M
 70mm. 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 L3 12M projection. Assume all dimensions are in 'mm'.



- *** END ***
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AREA NO

- An equilateral trianguliar plane ABC of side 40mm has its abue parallel to VP and E.3 1200 20mm areas from it. Draw the projections of the plane when one of its rides is (i) perpendicular in BP (ii) penallel to HP and will included as 110 areas angle of 43
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- A square pyramid of base 40 mm and axis 60 mm long, is base lies on VP with its **5.3** 1200 ants parallel to 6F. A cut sectional plane: 60° to VP and u pass 10 mm away from the sector at a sector from the sector from the projections actional from twice.
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