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PACE INSTITUTE OF TECHNOLOGY & SCIENCES::ONGOLE
(AUTONOMOUS)

I B.TECH I SEMESTER END SUPPLEMENTARY EXAMINATIONS, FEB - 2023
ENGINEERING GRAPHICS
(Common to EEE.ECE.CSE,CSIT,IT Branches)

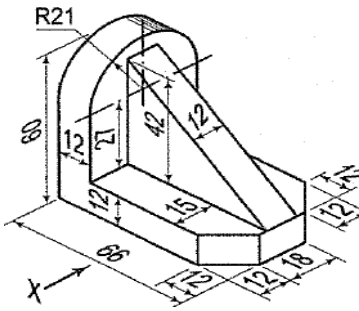
Time: 3 hours

Max. Marks: 60

Note: Question Paper consists of Two parts (Part-A and Part-B)

PART-A

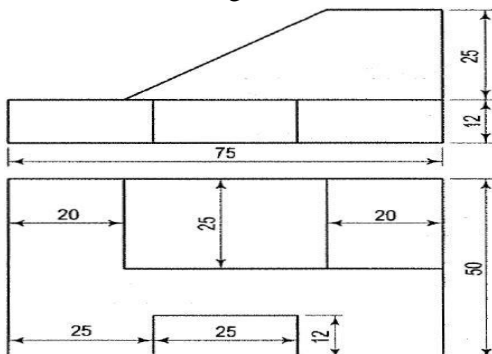
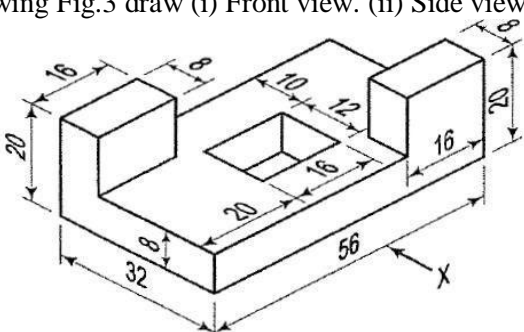
Answer all the questions in Part-A (5X2=10M)

Q.No.	Questions	Marks	CO	KL
1	a) Construct a Pentagon with a length of a side is 30mm	[2M]	1	2
	b) A regular pentagon of 25 mm side has one side on the ground. Its plane is inclined at 45° to the H.P and perpendicular to the V.P Draw its projections.	[2M]	2	2
	c) Draw the projections of a circle of 50 mm diameter having its plane vertical and inclined at 30° to the V.P. Its centre is 30 mm above the H.P. and 20 mm in front of the V.P.	[2M]	3	2
	d) Draw the orthographic views of a cube of 20 mm side.	[2M]	4	2
	e) Draw the front view of Fig 1. All dimensions are in mm. 	[2M]	5	2

PART-B

Answer One Question from each UNIT (5X10=50M)

Q.No.	Questions	Marks	CO	KL
UNIT-I				
2.	A fixed point is 75 mm from a fixed straight line. Draw the locus of a point <i>P</i> moving such a way that its distance from the fixed straight line is twice its distance from the fixed point. Name the curve.	[10M]	1	4
OR				
3.	On a building plan, a line 20 cm long represents a distance of 10 m. Devise a diagonal scale for the plan to read up to 12 m, showing meters, decimeters and centimeters. Show on your scale the lengths 6.48 m and 11.14 m.	[10M]	1	4
UNIT-II				
4.	a) A point <i>P</i> is 15 mm above the H.P. and 20 mm in front of the V.P. Another point <i>Q</i> is 25 mm behind the V.P. and 40 mm below the H.P. Draw projections of <i>P</i> and <i>Q</i> keeping the distance between their projectors equal to 90 mm. Draw straight lines joining (i) their top views and (ii) their front views.	[5M]	2	3

	b)	A 100 mm long line is parallel to and 40 mm above the H.P. Its two ends are 25 mm and 50 mm in front of the V.P. respectively. Draw its projections and find its inclination with the V.P.	[5M]	2	3
OR					
5.	a)	A point P is 20 mm below H.P. and lies in the third quadrant. Its shortest distance from xy is 40 mm. Draw its projections.	[5M]	2	3
	b)	The top view of a 75 mm long line measures 55 mm. The line is in the V.P., its one end being 25 mm above the H.P. Draw its projections.	[5M]	2	3
UNIT-III					
6.		The end A of a line AB is in the H.P. and 25 mm behind the V.P. The end B is in the V.P. and 50 mm above the H.P. The distance between the end projectors is 75 mm. Draw the projections of AB and determine its true length, traces and inclinations with the two planes.	[10M]	3	4
OR					
7.		A regular hexagon of 40 mm side has a corner in the H.P. Its surface is inclined at 45° to the H.P. and the top view of the diagonal through the corner which is in the H.P. makes an angle of 60° with the V.P. Draw its projections.	[10M]	3	4
UNIT-IV					
8.		A hexagonal pyramid, base 25 mm side and axis 50 mm long, has an edge of its base on the ground. Its axis is inclined at 30° to the ground and parallel to the V.P. Draw its projections.	[10M]	4	3
OR					
9.		A hexagonal pyramid with base of side 30 mm axis 60 mm is kept on the ground on its base. Draw the development.	[10M]	4	3
UNIT-V					
10.		Draw the isometric view of the casting shown in two views in Fig.2	[10M]	5	4
 <p style="text-align: center;">Fig.2</p>					
OR					
11.		From the following Fig.3 draw (i) Front view. (ii) Side view. (iii) Top view.	[10M]	5	4
 <p style="text-align: center;">Fig.3</p>					
