

Reg.No.: 

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VIVEKANANDHA COLLEGE OF ENGINEERING FOR WOMEN

[AUTONOMOUS INSTITUTION AFFILIATED TO ANNA UNIVERSITY, CHENNAI]

Elayampalayam – 637 205, Tiruchengode, Namakkal Dt., Tamil Nadu.

**Question Paper Code: 1004**

B.E. / B.Tech. DEGREE END-SEMESTER EXAMINATIONS – AUG. / SEP. 2023

First Semester

U19GE101 – ENGINEERING GRAPHICS

(Regulation 2019)

(Common to all Branches)

Time : Three Hours

Maximum : 100 Marks

Knowledge Levels (KL)	K1 – Remembering	K3 – Applying	K5 - Evaluating
		K2 – Understanding	K4 – Analyzing

Answer ALL the questions

(5 x 20 = 100 Marks)

QNo.	Questions	Marks	KL	CO
1.	a) Mark the projections of the following points on a common reference line. A 20 mm above HP and 15 mm in front of VP. B 20 mm above HP and 30 mm behind VP. C 10 mm below HP and 35 mm behind VP. D 10 mm below HP and 20 mm in front of VP. E 20 mm above HP and in VP. F 15 mm below HP and in VP. G 8 mm in front of VP and in HP. H 18 mm behind VP and in HP. (OR)	20	K1	CO1
2.	a) A regular pentagonal lamina of 30 mm sides has one edge in HP and inclined at an angle of $30^\circ$ to VP. Draw its projections, when its surface is inclined at $45^\circ$ to HP. (OR)	20	K2	CO1
2.	a) A hexagonal prism of side of base 25 mm and axis 60 mm rests on a corner of its base in HP with the axis of the prism inclined at $40^\circ$ to HP and parallel to VP. Draw its projections. (OR)	20	K4	CO2
	b) A cylinder of diameter 30 mm and axis height 50 mm is resting on HP, such that the axis is inclined to $30^\circ$ to HP. Draw its Projections.	20	K4	CO2
3.	a) A cube of side 35 mm rests on the HP on one of its faces with a vertical face inclined at $45^\circ$ to the VP. It is cut by a plane perpendicular to the VP and inclined at $30^\circ$ to the HP and meeting the axis at 25 mm above the HP. Draw the front view, sectional top view and the true shape of the section. (OR)	20	K3	CO3

- b) A cone of base diameter 40 mm and axis length 50 mm, resting on HP on its base is cut by a plane inclined at  $45^\circ$  to HP and perpendicular to VP and is bisecting the axis. Draw the front view, sectional top view and true shape of the section. 20 K3 CO3
4. a) A pentagonal prism of base side 25 mm and height 55 mm is cut by a plane perpendicular to VP and  $30^\circ$  to HP and passing through the axis 30 mm above the base. Draw the development of surface of the solid when one of its base edge parallel to VP and axis perpendicular to HP. 20 K2 CO4
- (OR)
- b) A hexagonal pyramid of base of side 25 mm and altitude 60 mm is resting vertically on its base on the ground with two of the sides of the base perpendicular to the VP .It is cut by a plane perpendicular to the VP and inclined at  $45^\circ$  to the HP. The plane bisects the axis of the pyramid. Draw the development of the lateral surfaces of the pyramid. 20 K2 CO4
5. a) Draw the orthographic views from the given pictorial view shown in figure 1. 20 K3 CO5

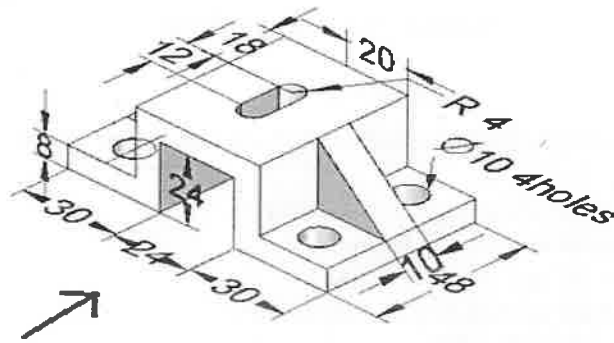


Fig.1

(OR)

- b) Draw the isometric view from the given detailed views shown in figure 2. 20 K3 CO5

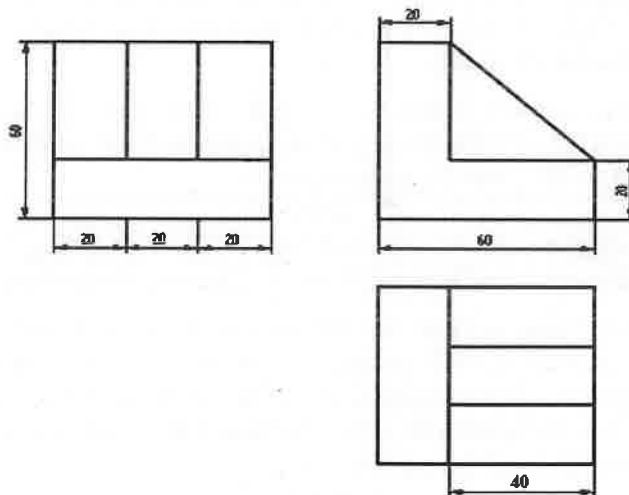


Fig. 2