5D

Reg.No.:								

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 – March/April 2023

First Semester

Common to All Branches

U19GE101 – ENGINEERING GRAPHICS

(Regulation 2019)

Time: Three Hours | Maximum: 100 Marks

Answer ALL the questions

Knowledge Levels (KL)	K1 – Remembering	K3 – Applying	K5 - Evaluating
	K2 – Understanding	K4 – Analyzing	K6 - Creating

(5 x 20 = 100 Marks)

Q.No.		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.	20	K2	CO1
		(OR)			
	b)	A line TS, 80 mm long has its end T, 10 mm above the HP and 15 mm in front of the VP. The other end S is 65 mm above the HP and 50 mm in front of the VP. Draw the projections of the line and find its true inclinations with the HP and VP.	20	K2	CO1
2.	a)	Draw the projections of hexagonal prism of base side 20 mm and axis length 50 mm when it rests on the ground on one of the edges of the base and the axis inclined at 35° to the ground and parallel to the VP.	20	K2	CO2
		(OR)			
	b)	A cone of base 40 mm diameter and axis 50 mm long touches VP on a point of its base circle. Its axis is inclined at 30° to VP and parallel to HP. Draw its projections.	20	K2	CO2
3.	a)	A hexagonal prism of base side 25 mm and axis length 55 mm is resting on HP on one of its bases with two of the vertical faces perpendicular to VP. It is cut by a plane inclined at 50° to HP and perpendicular to VP and passing through a point at a distance 12 mm from the top face. Draw its front view, sectional top view and true shape of the section.	20	K2	CO3
		(OR)			

	b)	A right circular cone of base diameter 50 mm and axis length 60 mm rests on its base on the HP. It is cut by a plane perpendicular to the HP and inclined at 60° to the VP. The shortest distance between the cutting plane and the top view of the axis is 8 mm. Draw the top view, sectional front view and the true shape of the section.	20	K2	CO3
4.	a)	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° to the HP. The plane bisects the axis of the pyramid. Draw the development of the lateral surfaces of the pyramid.	20	K2	CO4
		(OR)			
	b)	Draw the development of lateral surface of the lower portion of a cylinder of diameter 40 mm and axis 60 mm. The cylinder is cut by a plane inclined at 45° to HP, perpendicular to VP and bisects the axis.	20	K2	CO4
5.	a)	Draw the front, top, and right side views of the given fig.1.	20	K2	CO5

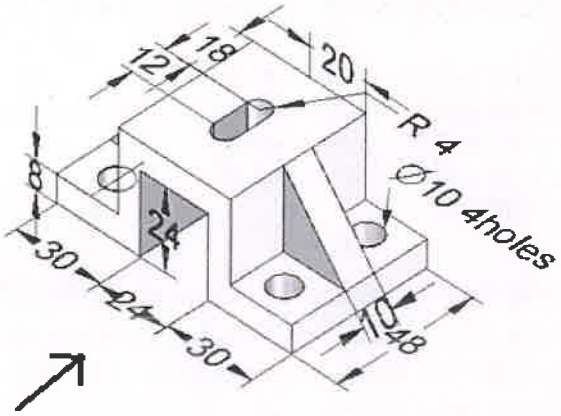

fig. 1

(OR)

	b)	Draw the isometric view from the given detailed views shown in figure.2	20	K2	CO5

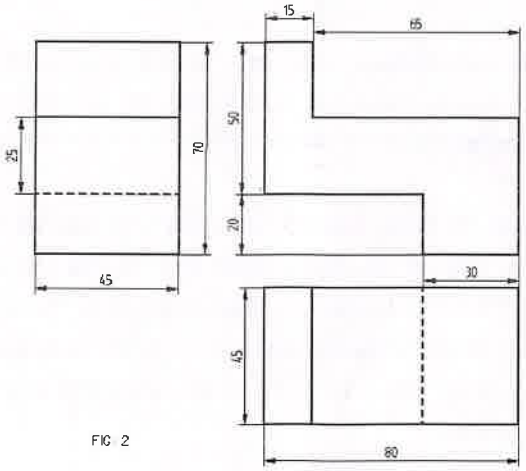

FIG 2