F **Reg. No. :** | | | | | | | | | | | | |

Question Paper Code : U1709

B.E./B.Tech. DEGREE EXAMINATION, MAY 2024

First Semester

Computer Science and Engineering

21UME109 – ENGINEERING GRAPHICS

(Common to All Branches)

(Regulation 2021)

Duration: Three hours Maximum: 100 Marks

Answer ALL Questions

PART - A (5 x 20 = 100 Marks)

1.	(a)	A cylinder of base diameter 50mm and axis height 65mm is resting on HP on a point on the circumference of the base with its axis inclined at 50º to HP and parallel to VP. Draw its projections.	CO1-App	(20)
		Or		
	(b)	A square pyramid of base side 40 mm and axis length 70 mm is resting on HP on one of its base corner with its axis parallel to VP and inclined 50° to HP. Draw its projections.	CO1-App	(20)
2.	(a)	A triangular prism of 35 mm side of base and axis 60 mm long has its base on the ground and its rectangular face is parallel and nearer to VP. A section plane perpendicular to VP and inclined at 60º to HP and passing through a point on the axis 20 mm below from the top face. Draw the front view, sectional top view and the true shape of the section.	CO2-App	(20)
		Or		
	(b)	A cone of base diameter 50 mm and axis height 60 mm is lying on the ground vertically. It is cut by a plane perpendicular to VP and inclined at 45º to HP and cuts the axis at a point 30 mm below the apex. Draw the front view, sectional top view and the true shape of the section.	CO2-App	(20)

3.	(a)	A pentagonal prism of base side 30mm and axis 60mm is resting on HP on its base with one of its rectangular faces is perpendicular to VP. It is cut by a plane inclined at 45 ˚ to HP and bisecting the axis. Draw the development of truncated portion of prism.	CO3-App	(20)
		Or		
	(b)	A square pyramid has a base side of 40 mm and altitude 70 mm. It rests with its base on HP such that one side of the base is inclined at 30° to VP. The pyramid is cut by a plane which bisects the axis and is inclined at 45° to HP. Draw the development of the remaining portion of the pyramid.	CO3-App	(20)
4.	(a)	A hexagonal prism, side of base 25 mm and height 50 mm rests on HP and one of the edges of its base is parallel to VP. A section plane perpendicular to VP and inclined at 45º to HP bisects the axis of the prism. Draw the isometric projection of the truncated prism.	CO4-App	(20)
		Or		
	(b)	A cone of base diameter 50 mm and height 70 mm stands on HP with its base. It is cut by a cutting plane inclined at 30º to HP cutting the axis of the cone at a height of 35 mm from its base. Draw the isometric view of the truncated cone.	CO4-App	(20)
5.	(a)	The pictorial view of an object is shown in Fig.1. Using the first angle orthographic projection, draw its Elevation looking in the direction of arrow, Plan and Left side view. Dimension the views.	CO5-App	(20)

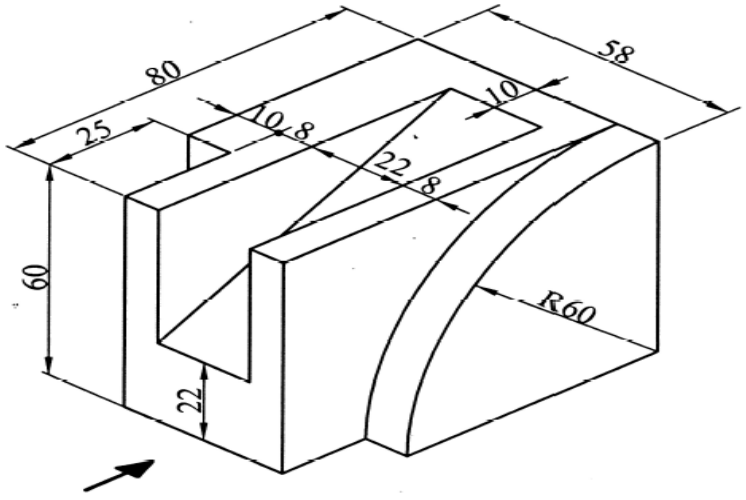

Fig. - 1

Or

(b) Draw the orthographic views for the given diagram using free hand CO5-App (20)

(i) Front view (ii) Top view (iii) right side view