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

Question Paper Code : 91710

B.E./B.Tech. DEGREE EXAMINATION, NOV 2019

First Semester

Civil Engineering

19UME109 – ENGINEERING GRAPHICS

(Common to ECE and MECHANICAL)

(Regulation 2019)

Duration: Three hours Maximum: 100 Marks

Answer ALL Questions

PART - A (5 x 20 = 100 Marks)

1.	(a)	A cone of base diameter 50 mm and axis 60 mm has one of its generators in the HP and axis is parallel to VP. Draw its projections.	CO1-App	(20)
		Or		
	(b)	A hexagonal prism of base side 30 mm and axis length 60 mm rests on the HP on one of its base edges with its axis inclined at 60°to the HP and parallel to the VP. Draw its front and top views.	CO1-App	(20)
2.	(a)	A pentagonal pyramid side of base 30 mm and axis 90 mm long is resting on its base with one of its base edges parallel, nearer and 15 mm away from the VP. It is cut by a plane perpendicular to VP, inclined at 40° to HP and 20 mm from the vertex. Draw the views and also obtain the true shape of the section.	CO2-App	(20)
		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.	CO2-App	(20)

3. (a) A square prism of base edge 50 mm sides and axis 70 mm long standing on its base with its faces equally inclined to the VP. It is cut by a section plane inclined at 45° to HP and passing through the intersection of the top surface and the face of the solid. Draw the development of the lateral surfaces of the lower portion of the truncated solid. CO3-App (20)

Or

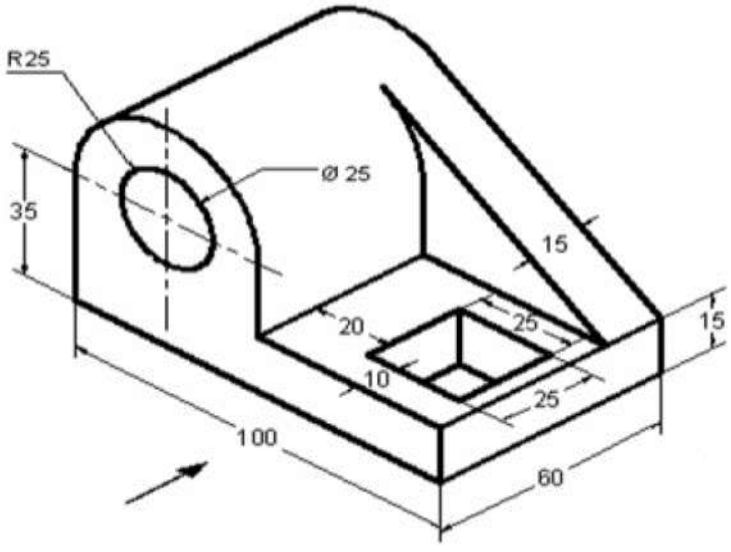
(b) A hexagonal pyramid of base of side 25 mm and altitude 50 mm is resting vertically on its base on the ground with two of the sides of the base perpendicular to the VP. It is cut by a plane perpendicular to the VP and inclined at 40° to the HP. The plane bisects the axis of the pyramid. Draw the development of the lateral surfaces of the lower portion of hexagonal pyramid. CO3-App (20)

4. (a) Draw the isometric view of a hexagonal pyramid of base side 30 mm and height 70 mm rests on its base on H.P with a base edge parallel to V.P. It is cut by a plane perpendicular to V.P inclined at 45° to H.P and meeting the axis at 40 mm from the base. CO4-App (20)

Or

(b) A Cone of base diameter 50 mm and height 70 mm is resting on its base on H.P. It is cut by a plane inclined at 35º to H.P & meets the axis 25 mm from the top. Draw the isometric view of the truncated cone. CO4-App (20)

5. (a) Draw the plan, elevation and available side view of the following object. CO5-App (20)



Or

(b) Sketch the front, top and left side views of the machine component shown in below figure. CO5-App (20)