UNIVERSITY OF PETROLEUM AND ENERGY STUDIES
End Semester Examination, December 2018

Course: Engineering Graphics   **Semester: I**
Course Code: MECH1001
Programme: BTech-ASE, ASE-AVE, ADE, E&CE, EL, FSE, CivilE-Sz-Infra, GIE, GSE, Mechantronics
Time: 03 hrs.   **Max. Marks: 100**

SECTION A

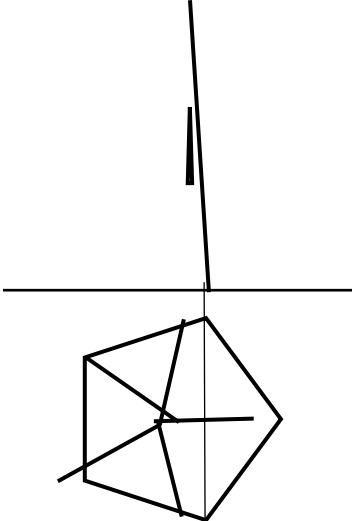| S. No.		Marks	CO
Q 1	Explain parallel dimensioning and superimposed running dimensioning.	5	CO1
Q 2	Describe plane surface, lofted surface and surface of revolution.	5	CO1
Q 3	Explain Scaling and reflection operation in computer graphics.	5	CO1
Q 4	A point P is 30 mm behind VP and 25 mm above HP, draw its FV, TV and SV.	5	CO2

SECTION B

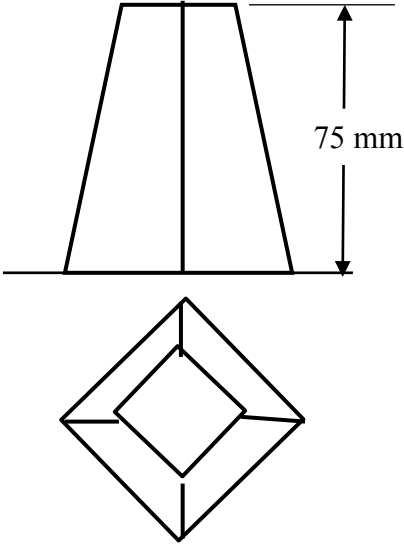| Q 5	Top view of a 75 mm long line RS, measures 50 mm. End R is in horizontal plane and 50 mm in front of vertical plane. End S is 15 mm in front of vertical plane and it is above horizontal plane. Draw the projections of RS and find angles with horizontal plane and vertical plane.	10	CO2
Q 6	A square LMNO of 50 mm side has its corner L in the horizontal plane, its diagonal LN inclined at 30° to the horizontal plane and the diagonal MO inclined at 45° to the vertical plane and parallel to the horizontal plane. Draw its projections.	10	CO2
Q 7	Draw the perspective views of a straight line AB, 3 cm long and inclined at 40 degrees to the picture plane. The station point is 4 cm in front of the picture plane, 3 cm above the ground plane and lies in a central plane passing through the mid-point of the line AB.	10	CO2
Q 8	A square pyramid, having a base with a 40 mm side and a 70 mm long axis, is resting on its base in the HP with all sides of the base equally inclined to the VP. Draw its sectional front view and top view if it is cut by a section plane perpendicular to VP bisecting the axis and is inclined at 45º to the HP.	10	CO2
OR			
	A triangular prism 60 mm long, having base as an equilateral triangle of side 40 mm is resting on the HP on one of its faces and its axis parallel to the VP. It is cut by a plane which is perpendicular to the VP, inclined at 30º to the HP and passing through the mid-point of the axis. Draw its sectional front and top views.	10	CO2

SECTION-C

Q 9	A pentagonal pyramid of base side 30 mm and axis 70 mm is resting on HP with one of its base side. The face associated with the resting side is made perpendicular to HP and inclined 60 degree to VP. Draw the projection of the solid.	20	CO3
Q 10	Draw the development and isometric view of a pentagonal pyramid having its base side 25 mm side and height 60 mm and standing in a position as shown in Figure. 	20	CO3
	OR		
	Draw the development and isometric view of a truncated square pyramid having its base 50 mm side, top 25 mm side and height 75 mm, standing in a position shown in Figure. 75 mm 	20	CO3