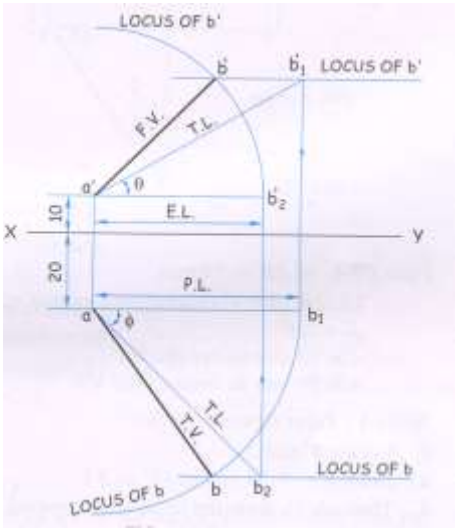
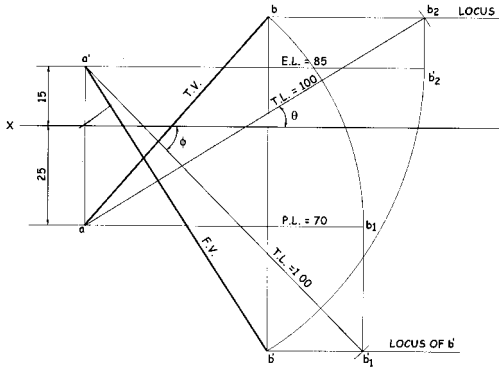
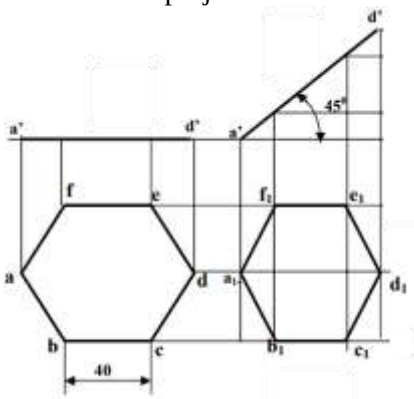
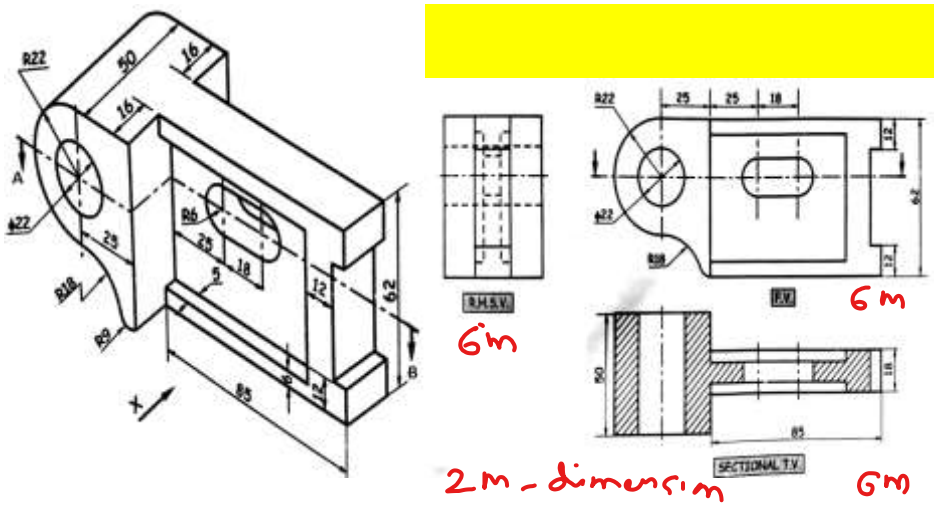
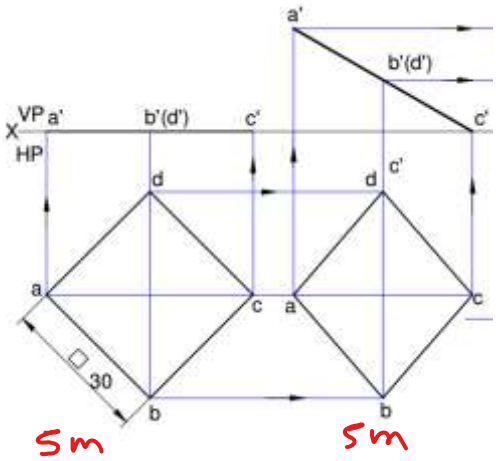
Set - N

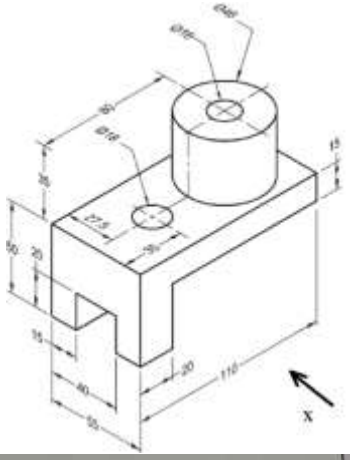
SOMAIYA VIDYAVIHAR UNIVERSITY

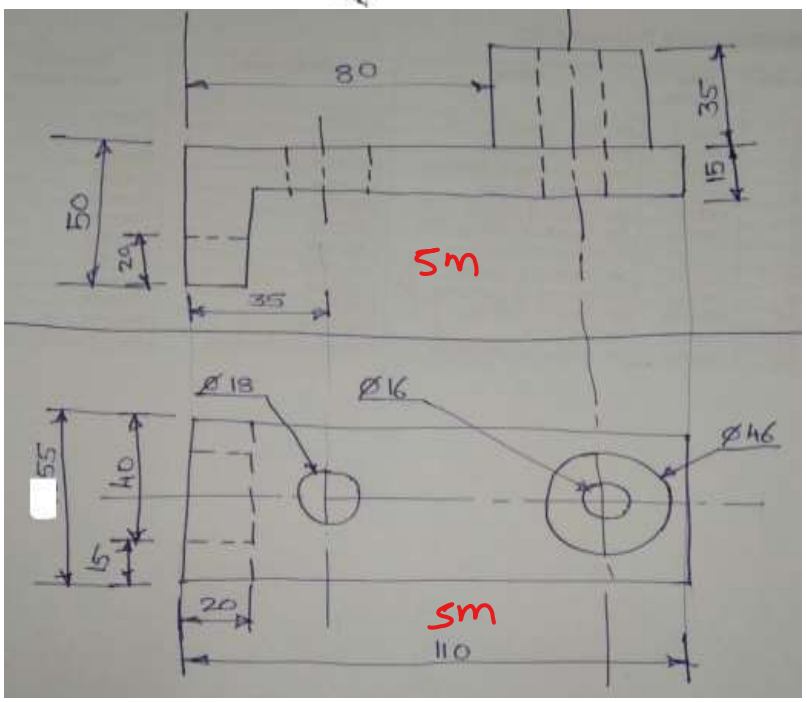
Semester: January 2024 – May 2024 **Examination: ESE Examination**		
Programme code: 01 **Programme: B.TECH**	**Class: FY**	**Sem I/II (SVU 2020)**
Name of the Constituent College: **K. J. Somaiya College of Engineering**	**Name of the Department: All**	
Course Code: 116U06C105	**Name of the Course: Engineering Drawing**	
Duration : 3 Hour	**Maximum Marks : 100**	

Marking Scheme & Solution

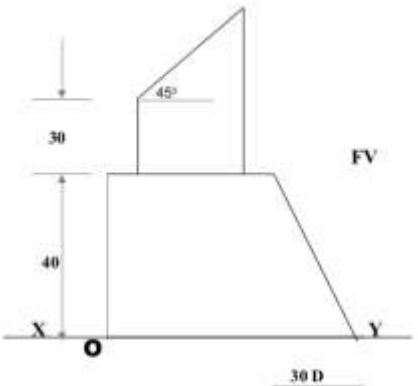
Question No.		Max Marks
Q1 (A)	Solve any **TWO** of the following a) A line AB, 70mm long has its end A 10 mm above the HP and 20 mm in front of the VP. The end B is 45 mm above the HP and 70 mm in front of the VP. Draw the projections of line AB and find its inclination with HP and VP. Assume a complete line in the first quadrant.  10 m b) The TV of 100 mm long line AB measures 70 mm while the length of its FV is 85 mm. Its one end A is 15 mm above the HP and 25 mm in front of VP. The other end is in the third quadrant. Draw projections of the line and find its inclination with HP and VP.  10 m	20

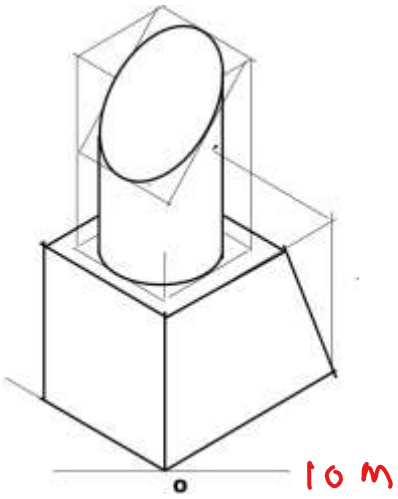
	b) A regular hexagon of 40 mm side has a corner in the HP. Its surface is inclined at 45° to the HP. Draw its projections.  5 m 5 m	
Q2	Figure shows pictorial view of Object. Draw using first angle method of projections, i) Front view in the direction of arrow X; ii) Sectional Top View along plane A-B; iii) Right-Hand Side View. Note: Insert 10 to 12 important dimensions  6m 6m 2m - dimension 6m	20
Q3	Solve any **TWO** of the following a) A square plate of 30 mm sides rests on HP such that one of the diagonals is inclined at 30 deg. to HP. Draw its projections.  5m 5m b) Figure shows pictorial view of an object. Draw the front view in the direction of arrow x and top view. Insert the important dimensions. Note: Insert 6 to 8 important dimensions	20

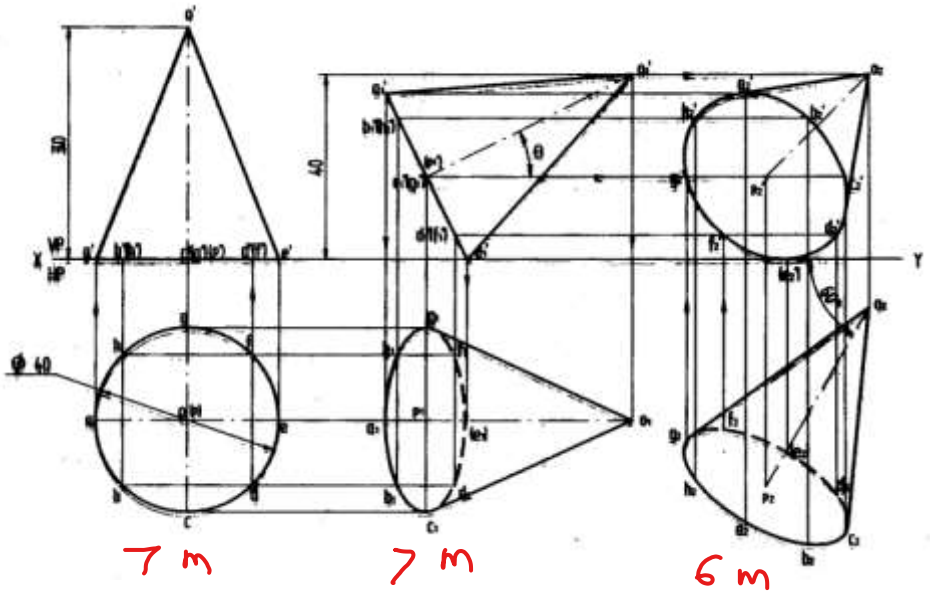
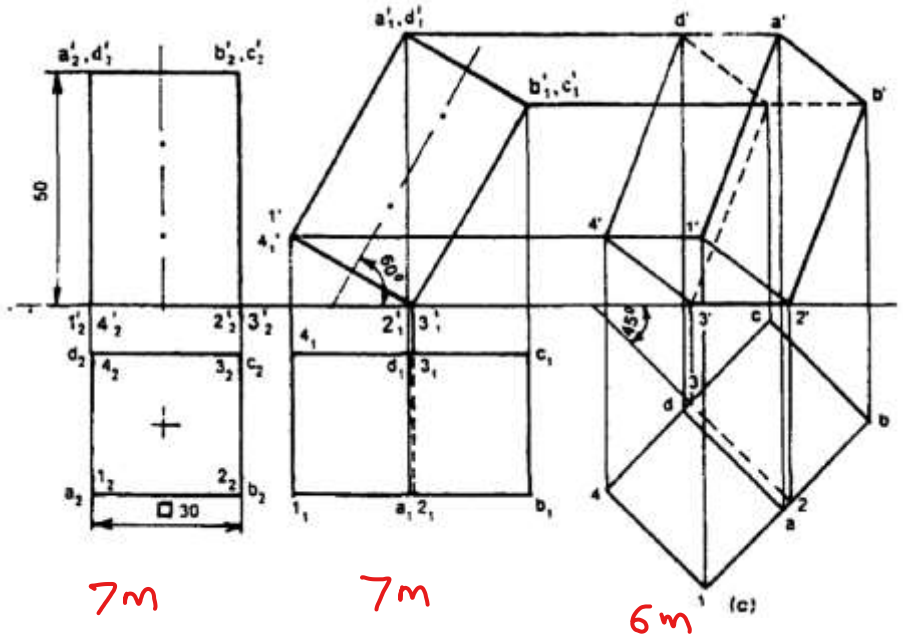




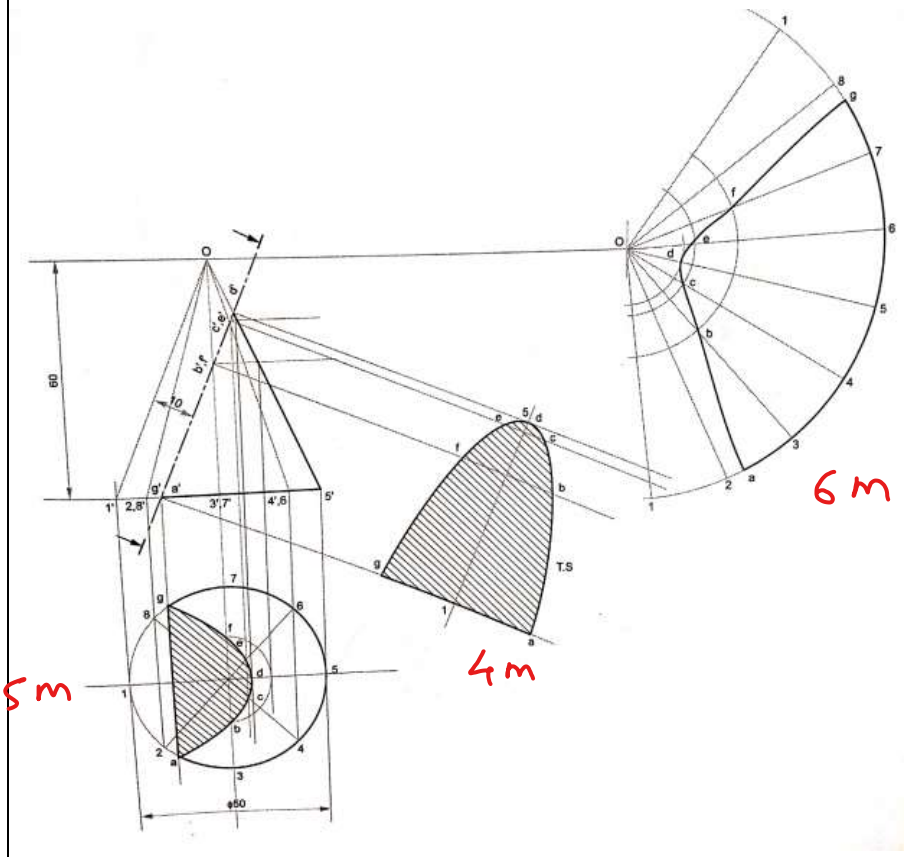
c) Figure shows F.V. and T.V. of an object. Draw isometric view about an origin 'O'.





Q4	A right circular cone, diameter of base 40 mm and height of axis 60 mm is resting on a point of its base circle rim on HP with the apex 40 mm above the HP. The top view of axis of the cone makes an angle of 60° with the VP. Draw the projections of the cone.  **OR** A square prism with side of base 30mm and axis 50mm long has its axis inclined at 60° to HP, resting on one of the edges of the base which is inclined at 45° to VP. Draw the projections  	20

Q5	A right circular cone of base circle diameter 50 mm and axis 60 mm long is resting on its base on HP. It is cut by a section plane which is perpendicular to VP and inclined to HP such that the plane is parallel to the end generator and 10 mm away from it. Draw the front view, the sectional top view and the true shape of section. Also draw the development of the cone after removing the portion containing the apex.	20



OR

A pentagonal pyramid, side of base 30 mm and height 58 mm, stands with its base on H.P and an edge of the base is parallel and near to V.P. It is cut by a plane perpendicular to V.P, inclined at 40° to H.P and passing through a point on the outer slant edge, 30 mm above the base. Draw the sectional top view, front view, true shape of the section and also develop the lateral surface of the truncated pyramid.