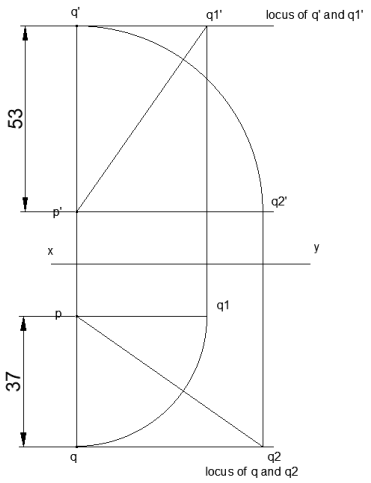
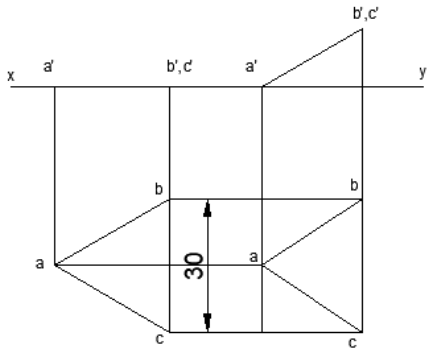
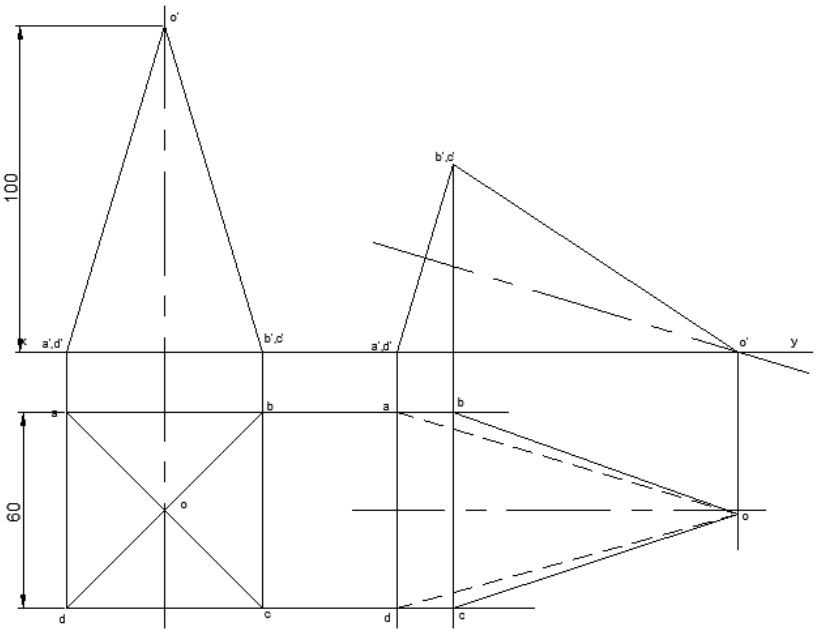
SOMAIYA VIDYAVIHAR UNIVERSITY

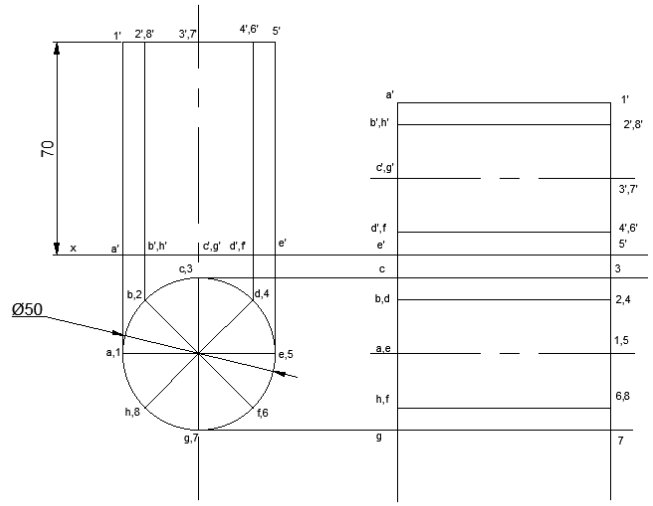
Semester: Jan 2024 – April 2024 **Maximum Marks: 50** **Examination: End-Semester Examination** **Duration: 2 Hrs.**		
Programme code: 01 **Programme: BTech**	**Class: FY**	**Semester: (SVU 2023)**
Name of the College: **K. J. Somaiya College of Engineering**	**Name of the department: All**	
Course Code: 216U06C105	**Name of the Course: Engineering Drawing**	

Instructions:

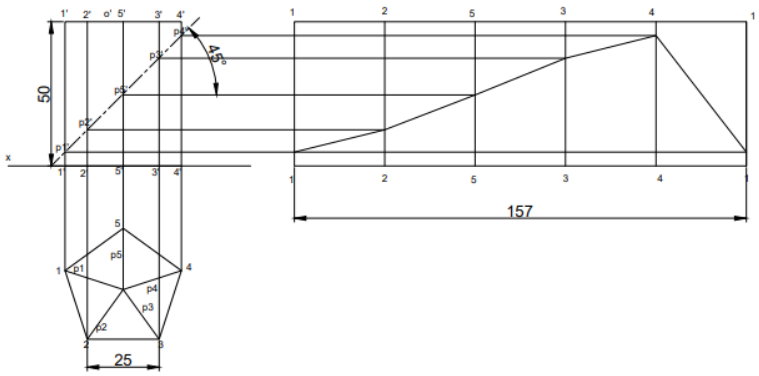
- All Questions are Compulsory.
- Figures to the right indicate full marks.
- Illustrate your answers using figures, sketches, diagrams etc.
- Assume suitable dimensions if necessary and state it clearly.
- **Avoid using colours and layers in your drawings to avoid problems during printing.**
- Line type, line thickness, text size, text font, content of title block, proper dimensions etc. at appropriate place carries weightage during assessment.
- Arrange your drawings properly and on minimum number of pages.
- All the students are requested to save the drawings regularly. In case of any hardware or software problems, extra time will not be allotted to any student for unsaved work.
- Any kind of electronic gadgets capable of memory storage such as pen drive, mobile etc. are not permitted.

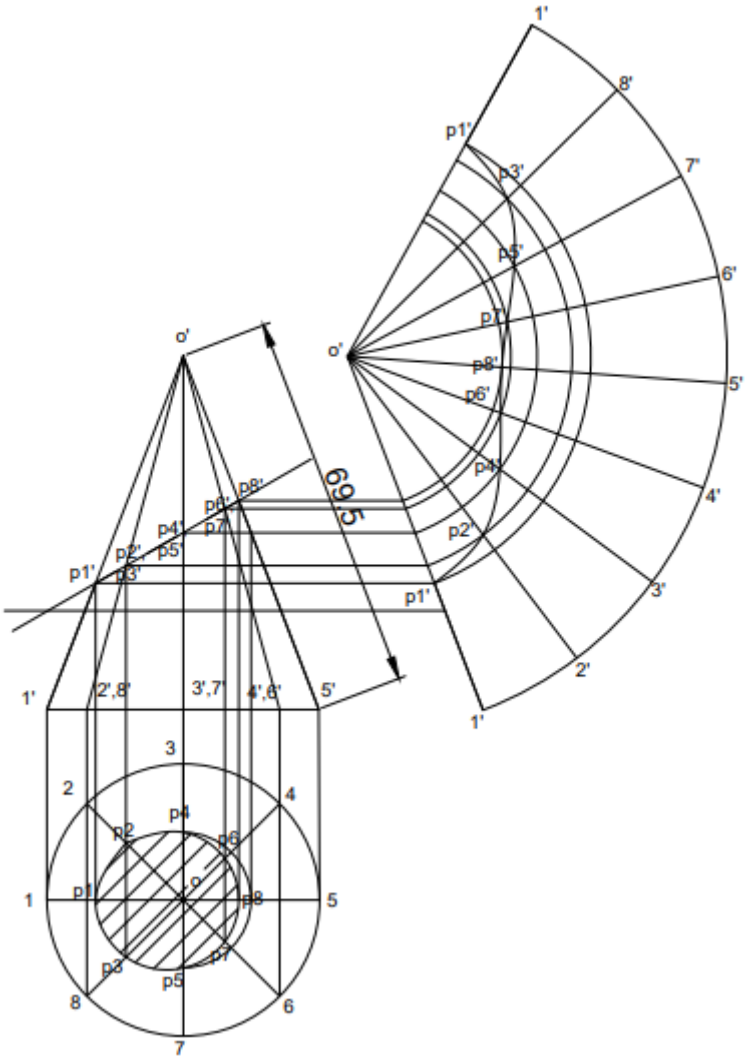
Que. No.	Question Statement	Max. Marks
Q.1	Attempt any **ONE**	**10**
i)	A line PQ, 65 mm has its end P, 15 mm above H.P and and 15mm in front of V.P. It is inclined at 55° to the H.P and 35° to the V.P. Draw its projections. Assume the end Q to be in first quadrant.  Given data 4M + soln 4M + dimension 2M	
ii)	An equilateral triangular lamina , edge 30 mm is resting on a corner with an edge parallel to H.P. Draw the projections if the surface of the triangle is at 30° with H.P and the nearest point is 25 mm away from V.P.	

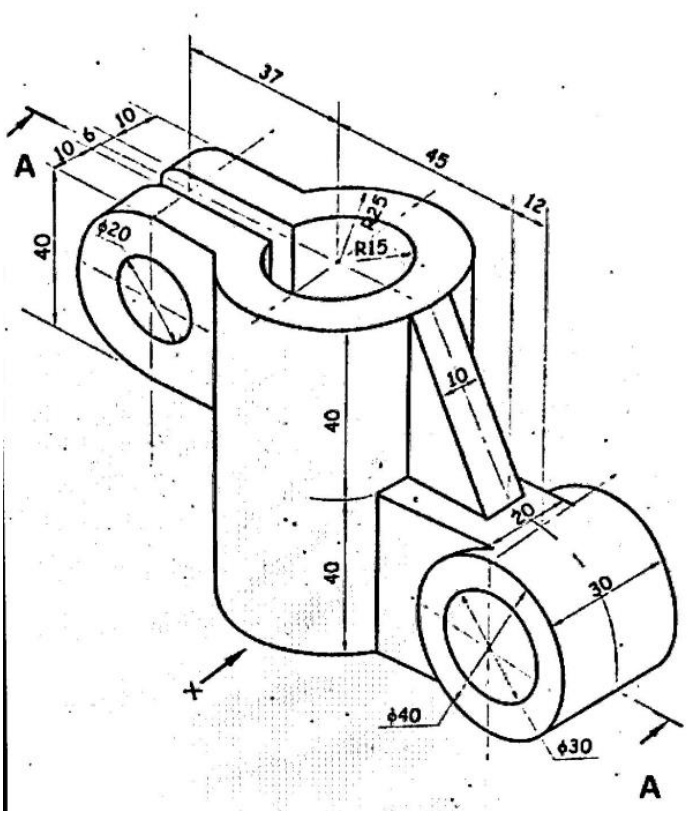
	 1st stage 4M + 2nd stage 6M	
Q.2	Attempt any **ONE**	**10**
i)	A square pyramid of base side 60 mm and altitude 100 mm lies on the H.P on one of its triangular faces with its axis parallel to V.P. Draw its projections.  3M + 6M +1M	
ii)	Draw the projections of a cylinder of base diameter 50 mm and axis length 70 mm when it is lying on one of its generators on H.P.	

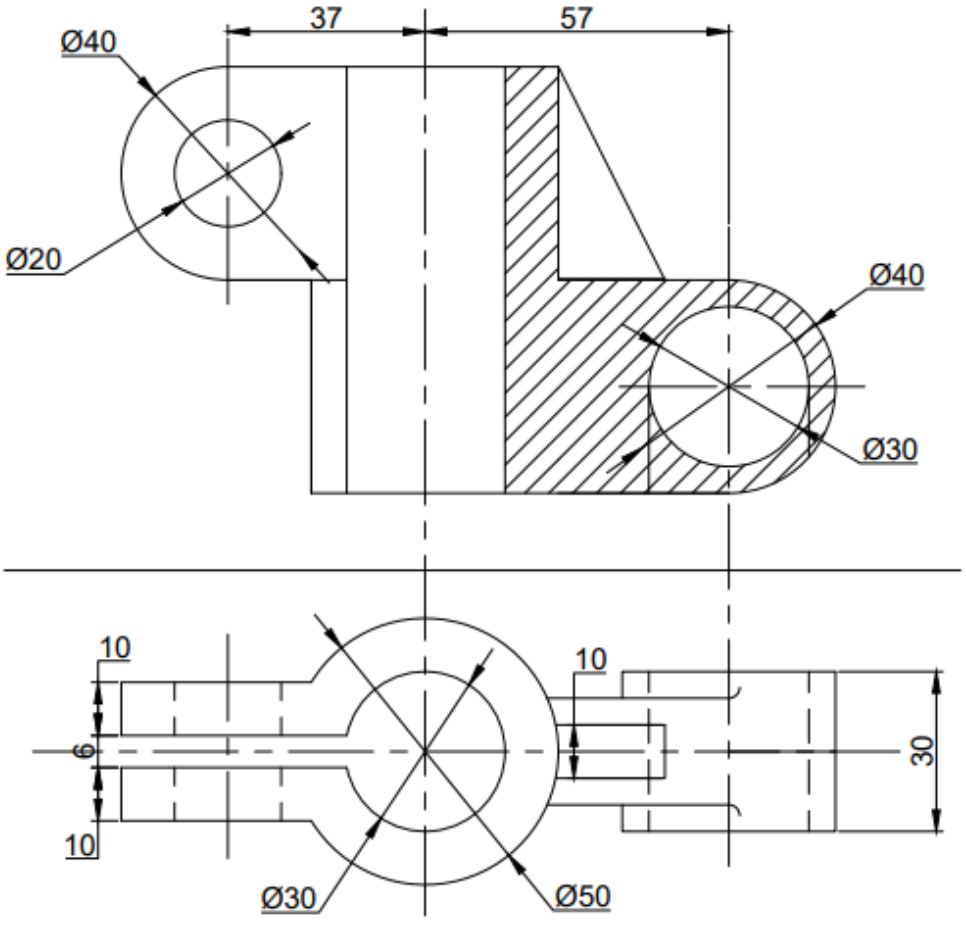


3M + 6M +1M

Q.3	Attempt any **ONE**	**10**
i)	A pentagonal prism of side of base 25 mm and altitude 50 mm rests on its base on the H.P such that an edge of the base is parallel to V.P and nearer to the observer. It is cut by a plane inclined at 45° to H.P, perpendicular to V.P and passing through the centre of the axis. Draw the sectional front view, top view and lateral development of the truncated prism.  3M +4M +3M	
ii)	A solid cone of base 50 mm diameter and height 65 mm rests with its base on the H.P. A section plane perpendicular to V.P and inclined at 30° to H.P bisects the axis of the cone. Draw the sectional front view, top view and development of the lateral surface of the cone.	

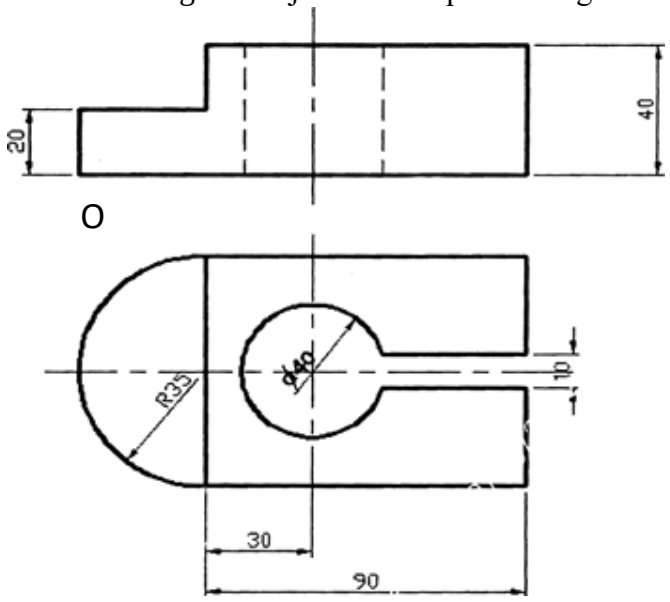
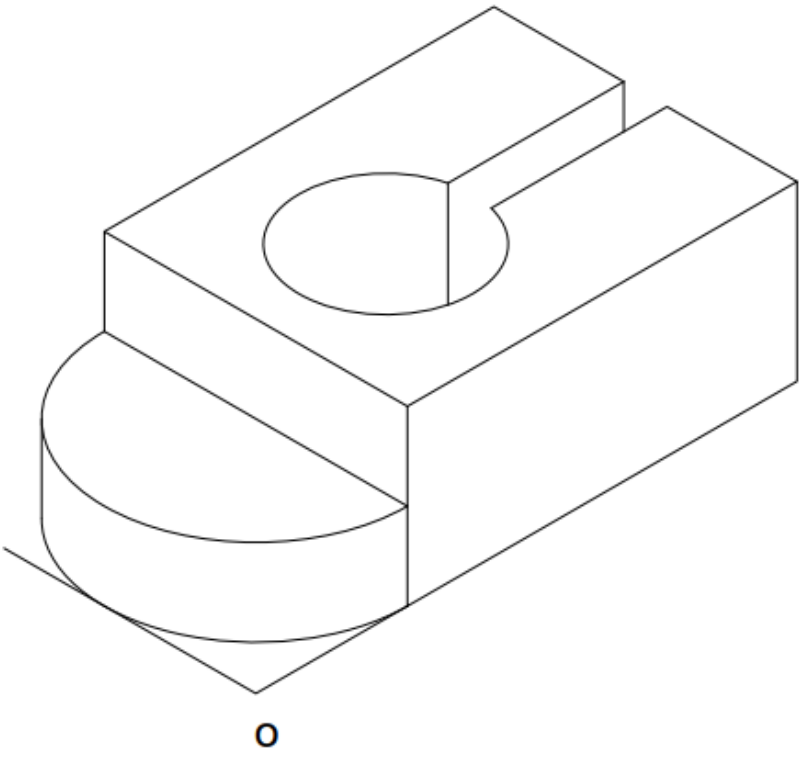
	 3M + 4M +3M	
Q.4	Attempt the following	**10**
	Draw sectional FV from X direction along A-A and TV Insert important dimensions	





T.V 4M + Sec. F.V 5M + Full Dimensioning 1M

Q.5	Attempt the following	**10**

	Draw an isometric view of given object with respect to origin ‘O’   outer details 5M + inner details 5M