Set-A

SOMAIYA VIDYAVIHAR UNIVERSITY

14.05.2024 (M)

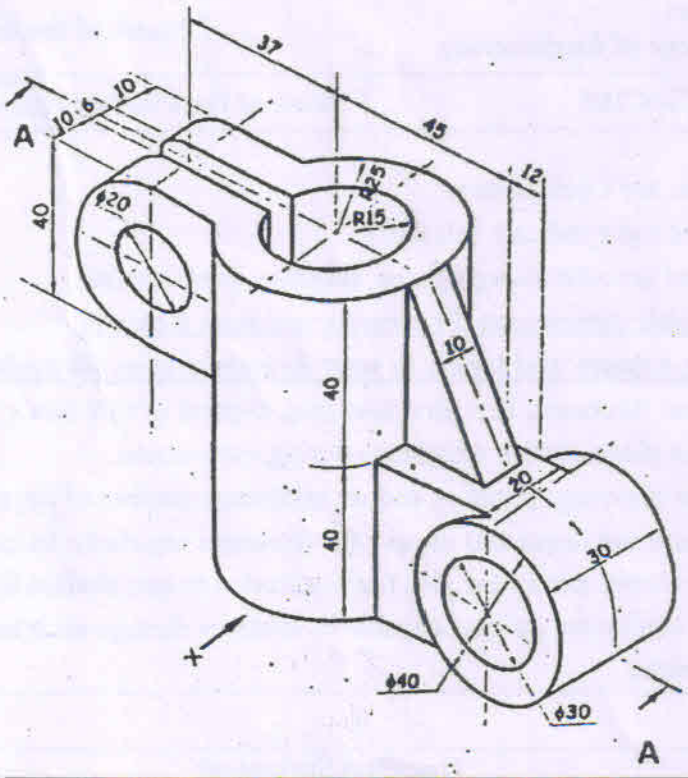
Semester: Jan 2024 – April 2024		
Maximum Marks: 50 **Examination: End-Semester Examination**		**Duration: 2 Hrs.**
Programme code: 01 **Programme: BTech**	**Class: FY**	**Semester: (SVU 2023)**
Name of the College: **K. J. Somaiya College of Engineering**	**Name of the department: All**	
Course Code: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

Instructions:

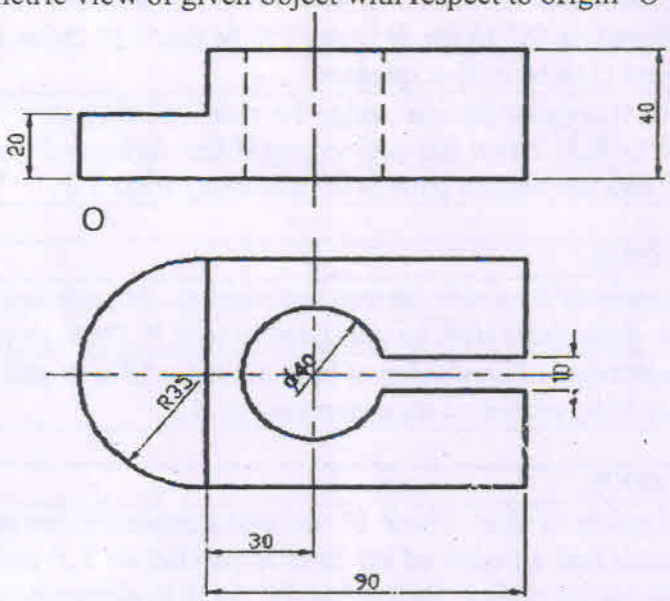
- All Questions are Compulsory.
- Figures to the right indicate full marks.
- Illustrate your answers using figures, sketches, diagrams etc.
- Assume suitable dimensions if necessary and state it clearly.
- **Avoid using colours and layers in your drawings to avoid problems during printing.**
- Line 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.	
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.	
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.	
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.	
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 topview, frontview and lateral development of the truncated prism.	
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 top view, frontview and development of the lateral surface of the cone.	

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



Q.5	Attempt the following	10
	Draw an isometric view of given object with respect to origin 'O'	



Set-B

SOMAIYA VIDYAVIHAR UNIVERSITY

14.05.2024 (M)

Semester: January 2024 – April 2024 **Maximum Marks: 50** **Examination: End-Semester Examination** **Duration: 2 Hrs.**		
Programme code: 06 **Programme: BTech**	**Class: FY**	**Semester: II (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.
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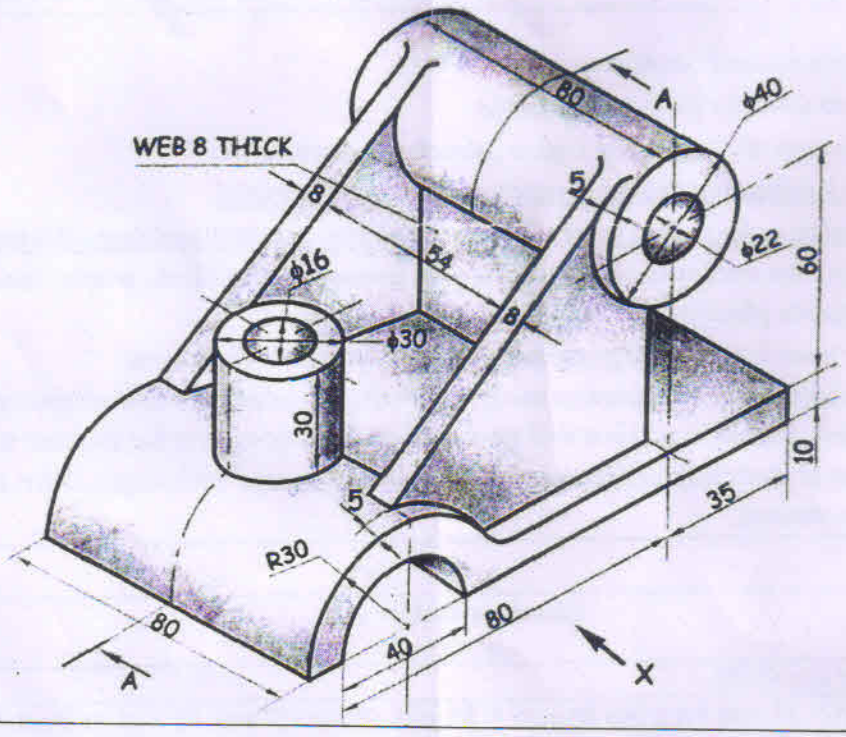
- Any kind of electronic gadgets capable of memory storage such as pen drive, mobile etc. are not permitted.

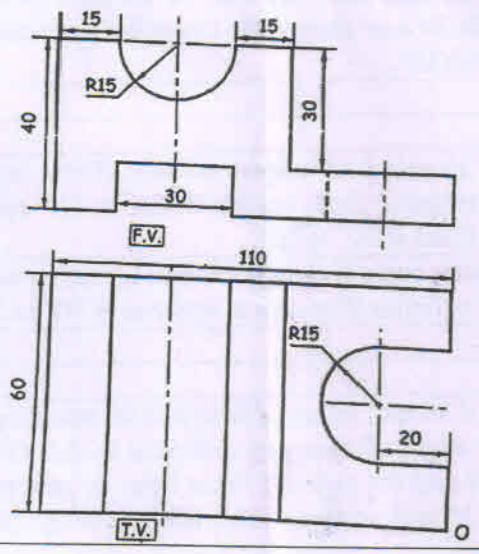
Que. No.	Question Statement	Max. Marks
Q.1	Attempt any **ONE**	**10**
i)	A line AB 70 mm long has its end A 15 mm above HP and 25 mm in front of VP. It is inclined at 30^0 to HP and the distance between end projectors is 40 mm. Draw its projections when end B lies in first quadrant. Find the inclination of line with VP.	
ii)	A pentagonal plate of 35 mm side has one of its sides in HP. The corner opposite to this corner is 30 mm above HP. Draw the projections and find the inclination of surface with HP.	
Q.2	Attempt any **ONE**	**10**
i)	A pentagonal prism of 30 mm base edges and axis 70mm long is resting on HP with one of its rectangular faces perpendicular to HP and VP. Draw its projections if axis is inclined at 30^0 to HP.	
ii)	A cone of 50 mm diameter and axis length 70 mm is resting on its base in HP. Draw the projections of cylinder if its axis is inclined at 40^0 to HP.	
Q.3	Attempt any **ONE**	**10**
i)	A pentagonal pyramid of 30 mm edges of base and 65 mm height is resting on its base with one of the edges of base perpendicular to the VP. It is cut by an AIP in such a way that it cuts the axis at 25 mm from its base and is inclined at 45^0 to the HP. Draw FV and sectional TV. Also develop lateral surface of retained pyramid.	

ii)	A cylinder of 60 mm diameter and axis 70 mm long stands with its circular base on HP. A section plane inclined at 45° to HP bisects the axis of cylinder. Draw FV and sectional TV. Also draw the development of lateral surface of retained cylinder.	

Q.4	Attempt the following	10
	Draw sectional FV along A-A and TV Insert important dimensions	



Q.5	Attempt the following	10
	Draw an isometric view of given object with respect to origin 'O'	



Set - C

SOMAIYA VIDYAVIHAR UNIVERSITY

14.05.2024(M)

Semester: January 2024 – April 2024 **Maximum Marks: 50** **Examination: End-Semester Examination** **Duration: 2 Hrs.**		
Programme code: 06 **Programme: BTech**	**Class: FY**	**Semester: II (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**	

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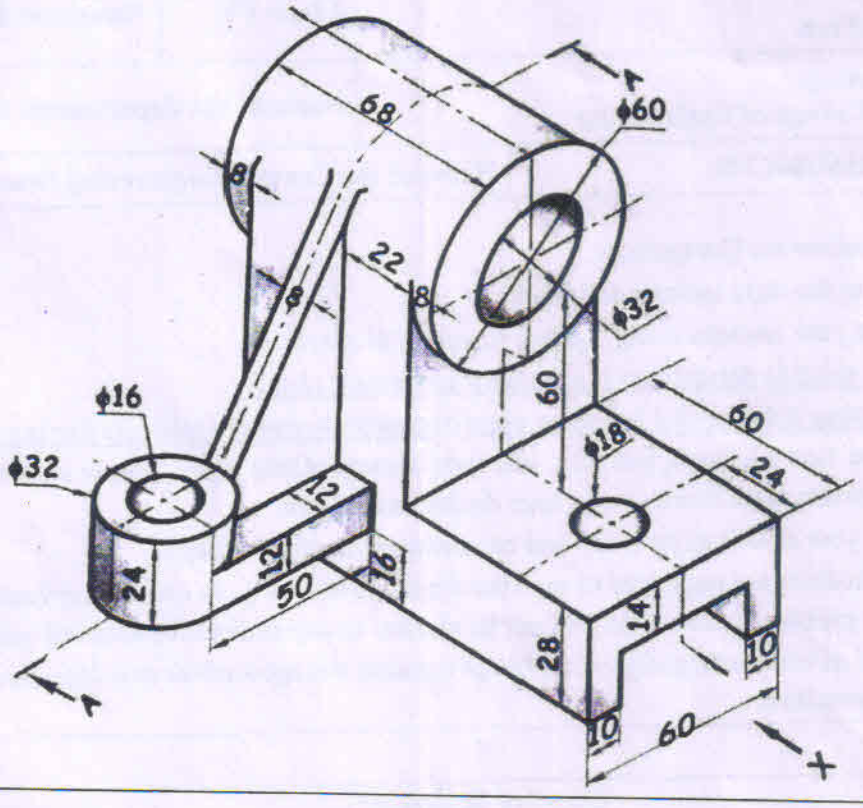
Que. No.	Question Statement	Max. Marks
Q.1	Attempt any **ONE**	**10**
i)	A line AB 60 mm long has its end A 15 mm above HP and 10 mm in front of VP. It is inclined at 45^0 to HP and 30^0 to VP. Draw its projections when end B lies in first quadrant	
ii)	A hexagonal plate of 35 mm side has one of its corners in VP. The corner opposite to this corner is 30 mm in front of VP. Draw the projections and find the inclination of surface with VP.	
Q.2	Attempt any **ONE**	**10**
i)	A pentagonal pyramid of 30 mm base edges and axis 70mm long is lying on one of its triangular faces on HP. Draw its projections,	
ii)	A cylinder of 50 mm diameter and axis length 70 mm is resting on its base in HP. Draw the projections of cylinder if its axis is inclined at 40^o to HP.	
Q.3	Attempt any **ONE**	**10**
i)	A pentagonal prism of 30 mm edges of base and 60 mm height is resting on its base with one of the edges of base perpendicular to the VP. It is cut by an AIP in such a way that it bisects the axis and is inclined at 45^o to the HP. Draw FV and sectional TV. Also develop lateral surface of retained pyramid	
ii)	A cone of 60 mm diameter and axis 70 mm long stands with its circular base on HP. A section plane perpendicular to VP and inclined at 45^o to HP cuts the axis at a point 25 mm from its base. Draw FV and sectional TV. Also draw the development of lateral surface of retained cone.	

SOMAIYA VIDYAVIHAR UNIVERSITY

Q.4	Attempt the following	10
	Draw sectional FV along A-A and TV Insert important dimensions	



Q.5	Attempt the following	10
	Draw an isometric view of given object with respect to origin 'O'