

K. J. Somaiya Institute of Technology, Sion, Mumbai-22
(Autonomous College Affiliated to University of Mumbai)

May-June 20 2024

(B.Tech.) Program: All Branches Engineering Scheme: III

Supplementary **Regular Examination: FY Semester: II**

Course Code: BSC204 and Course Name: Engineering Graphics

Date of Exam: 02/05/2024

Duration: 03 Hours

Max. Marks: 60

Instructions:

- (1) All questions are compulsory.
- (2) Draw neat diagrams wherever applicable.
- (3) Assume suitable data, if necessary.
- (4) All dimensions are in mm.

		Max. Marks	CO	BT level
Q 1	<p>For the figure shown below, draw the following views</p> <ol style="list-style-type: none"> 1. Front view from X direction 2. Top view 3. Sectional side view (along AA direction) <p>Show 10 dimensions in the views</p>	15	5	A
<p>The diagram shows an isometric view of a mechanical component. It features a base with a semi-circular front edge (R10) and a rectangular section (50x80). A vertical support (10x10) rises from the base. A horizontal shaft (10x10) passes through the support and a top flange. The top flange has a semi-circular front edge (R25) and a central hole (30). A cutting plane X-X is shown at the front, and a cutting plane A-A is shown along the length of the shaft.</p>				
Q.2	<p>A pentagonal pyramid of base edges 35 mm and axis height 70 mm rests on one of its slant edges on HP which is inclined at 30° to VP. Draw its projections when apex is nearer to observer.</p>	15	2	A
Q.3	<p>A square pyramid edge of base 40 mm and axis length 60 mm stands vertically on its base in HP with one of its base edges parallel to VP. It is cut by a plane inclined at 45° to VP and 10 mm away from the axis of pyramid. Draw the sectional front view, top view, true shape of section and development of lateral surface of pyramid.</p>	15	3	A

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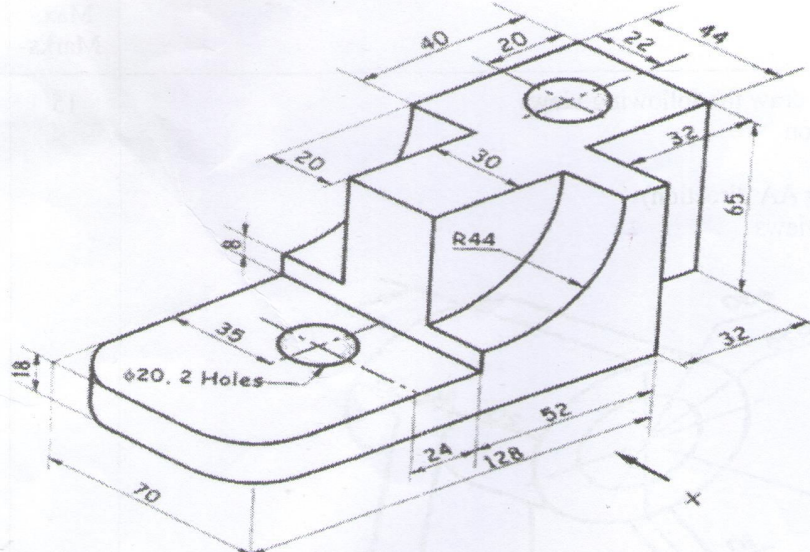
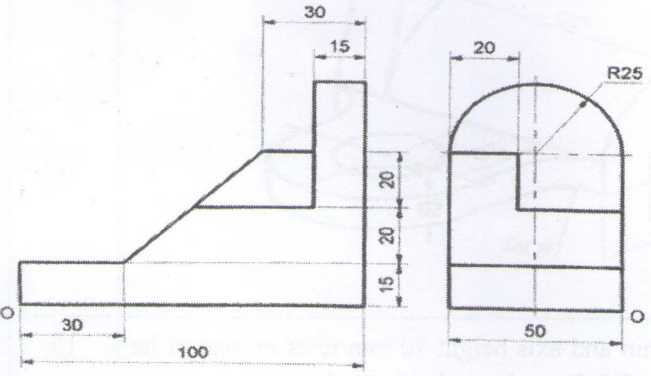
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<p>Q.4</p>	<p>For the figure shown below, draw the following views</p> <ol style="list-style-type: none"> 1. Front view from X direction 2. Top view 3. Left hand side view <p>Show 10 dimensions in the views</p> 	<p align="center">15</p>	<p align="center">4</p>	<p align="center">A</p>
<p>Q.5 a.</p>	<p>The two views of an object are shown below. Draw there isometric view with O as origin.</p> 	<p align="center">09</p>	<p align="center">6</p>	<p align="center">A</p>
<p>b.</p>	<p>A pentagonal prism of 35 mm edge of base and 60 mm length of axis is having an edge of base perpendicular to VP and the base rests in the HP. The rectangular face contained by that base edge is inclined at 30° to HP. Draw the projections.</p>	<p align="center">06</p>	<p align="center">2</p>	<p align="center">A</p>

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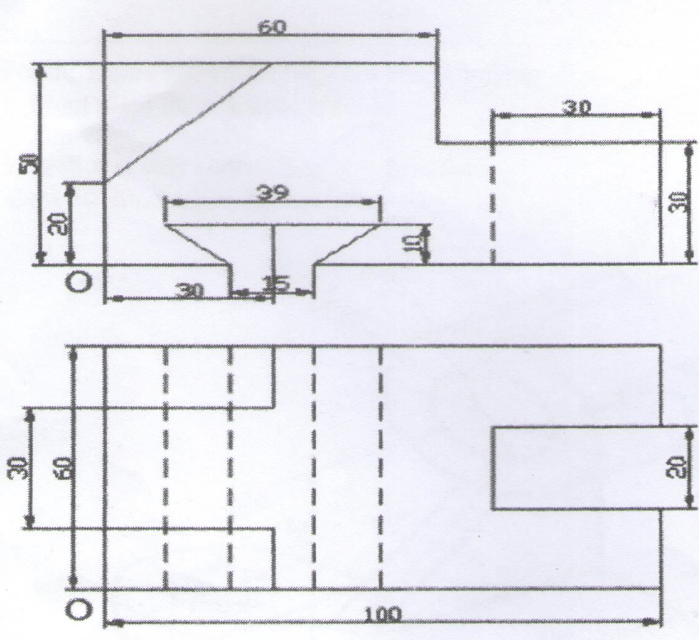
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Q.6 a.	The front view of a line AB 90 mm long measures 65 mm. The end A is on VP and 20 mm below HP. Front view is inclined to the XY line by 45°. The end B is in third quadrant. Draw the projections of line and find inclination of the line with H.P and VP.	09	1	A
b.	<p>The two views of an object are shown below. Draw there isometric view with O as origin.</p> 	06	6	A
