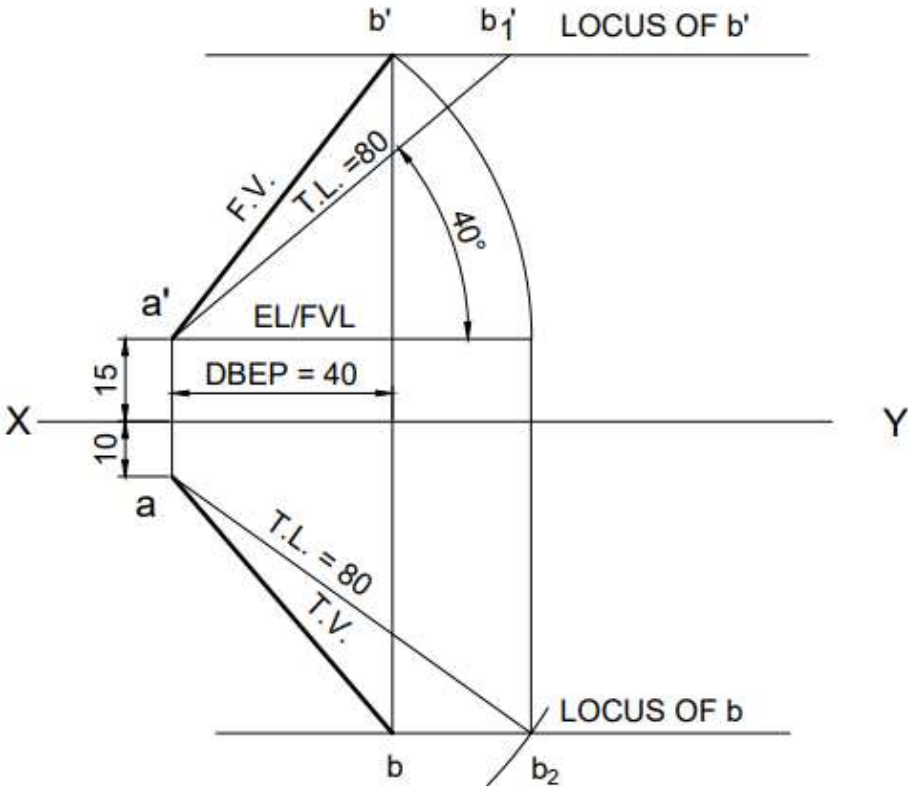


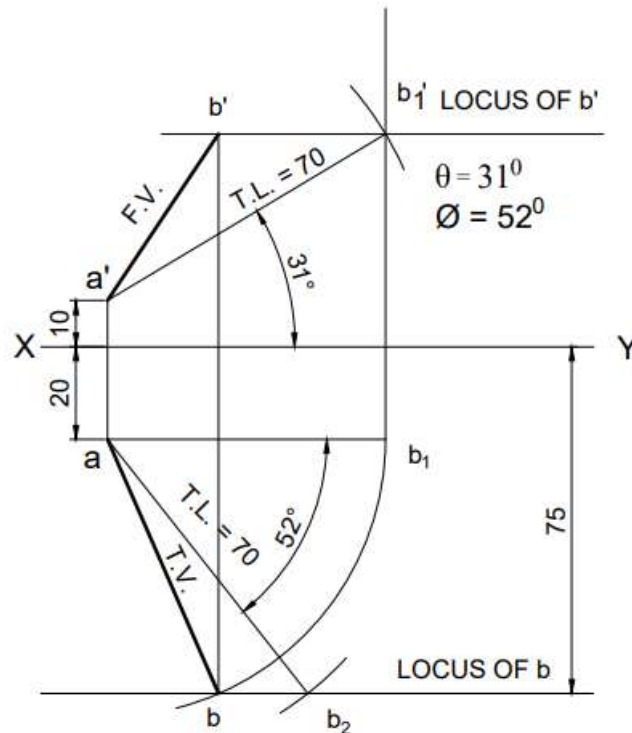
Semester: Jan 2024 – May 2024 Maximum Marks: 30 Examination: In-Semester Examination Solution with marking scheme Duration: 1 Hr 15 Min			
Programme code: 06 Programme: B. Tech.	Class: FY	Semester: II (SVU R-2023 24-07-2023)	Set A
Name of the Constituent College: K. J. Somaiya College of Engineering		Name of the department: (Group P)	
Course Code: 216U06C105		Name of the Course: Engineering Drawing	

Question No.		Max. Marks
Q1	<p>The distance between end projectors of a line AB is 40 mm. The line AB is 80 mm long and is inclined at 40° to the HP. The end A is 15 mm above the HP and 10 mm front of the VP. Draw the projections of line AB.</p> <p>Solution:</p>  <p>Distribution of Marks: Data plot: 02 M Solution: 04 M Dimensioning: 02 M</p>	8

OR

The T.V. of line AB, 70 mm long measures 60 mm. The end point A is 10 mm above the HP and 20 mm in front of VP. The other point B is 75 mm in front of the V.P. Draw the projections of line AB and determine its inclination with the HP and VP. Assume the line in the Ist Quadrant.

Solution:



Distribution of Marks:

Data plot: 02 M

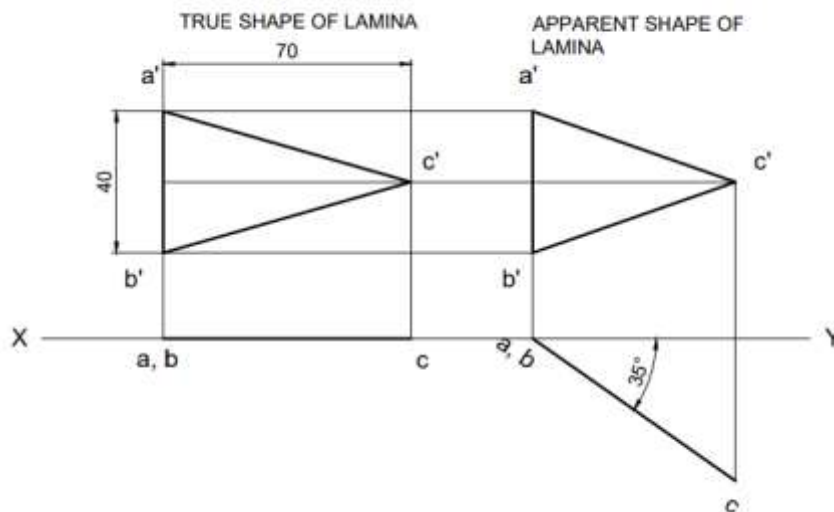
Solution: 04 M

Dimensioning: 02 M

Q2

An isosceles triangular plate with base 40 mm and altitude 70 mm has its base in V.P. Draw its projections if its surface is inclined at 35° to the V.P.

Solution:



Distribution of Marks:

Stage I: 04 M

Stage II: 04 M

8

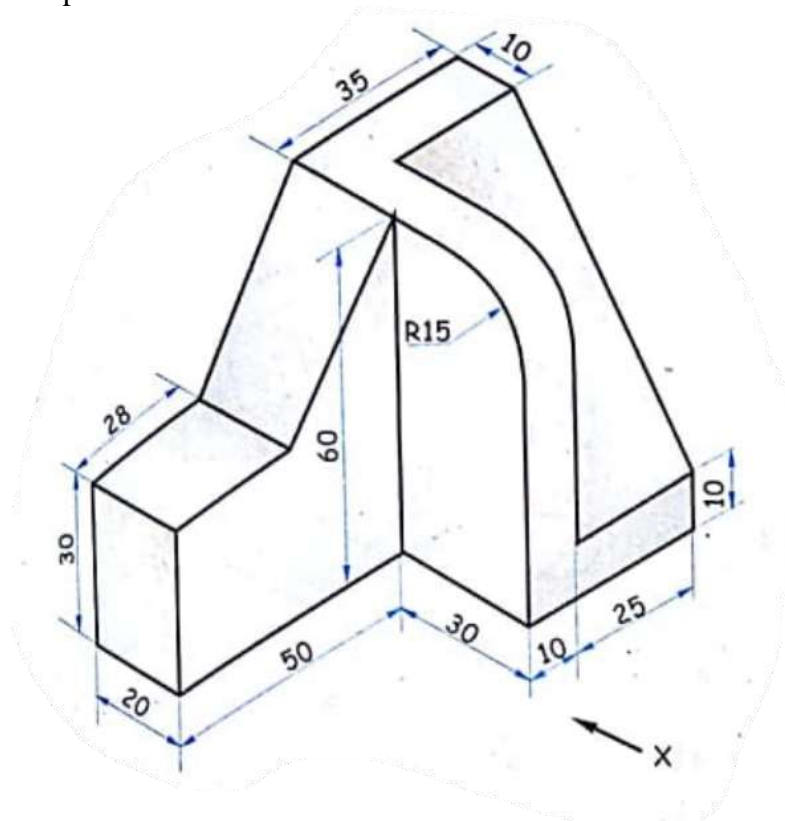
Q3

Figure shows a pictorial view of an Object. (Use First angle Projection method)

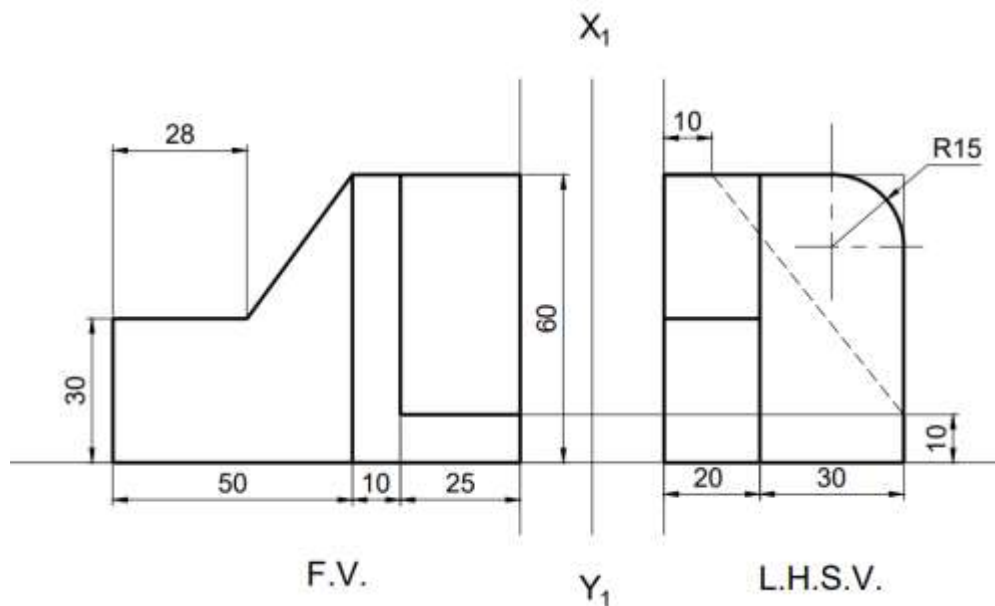
14

Draw :

- i) Front View;
- ii) Left Hand Side View.
- iii) Insert important dimensions.



Solution:



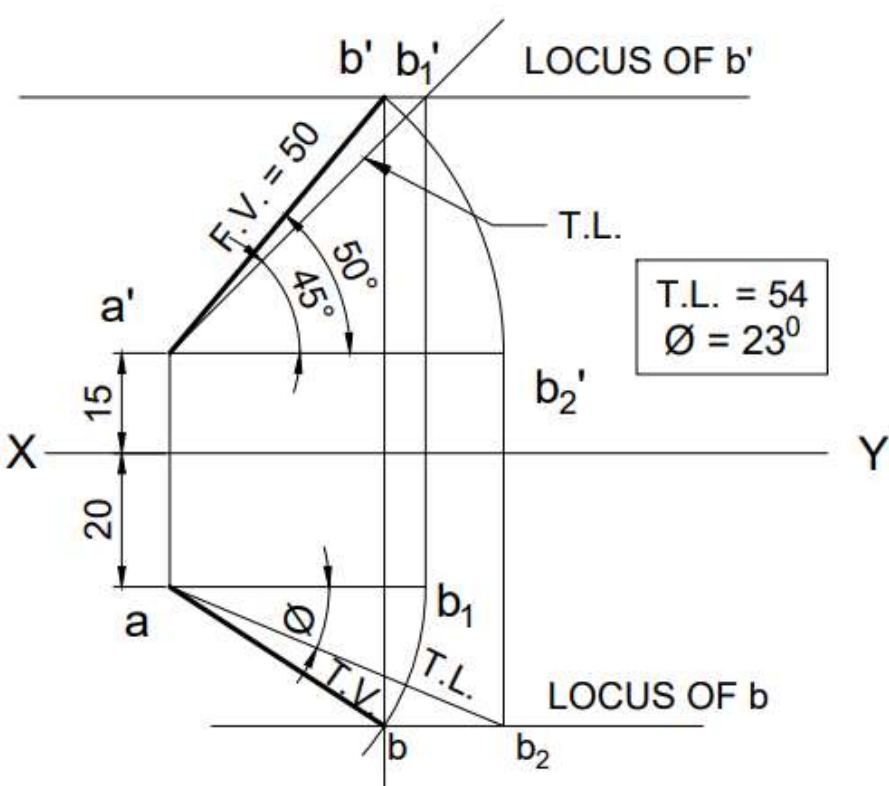
Distribution of Marks:

Front View: 06 M

Left Hand Side View: 06 M

Dimensioning: 02 M

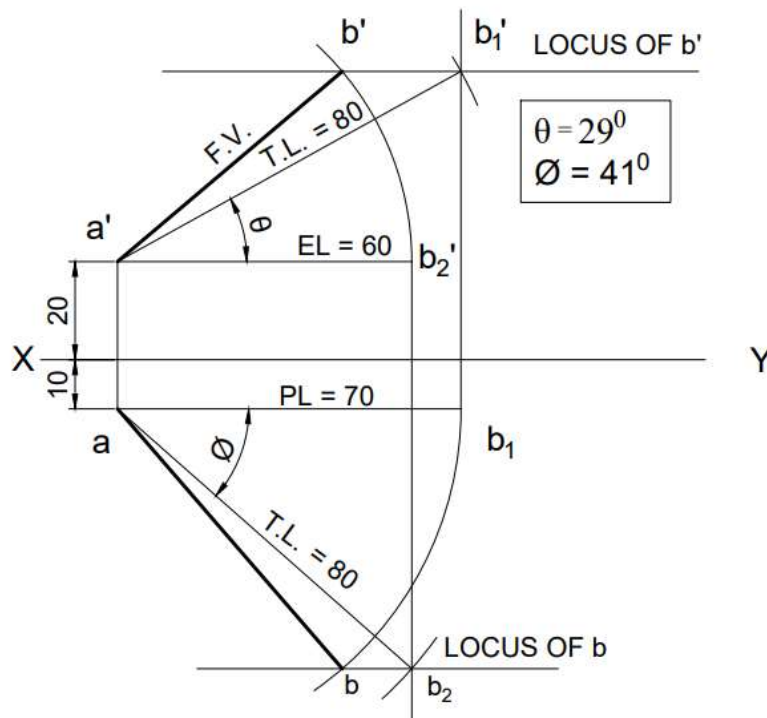
Semester: Jan 2024 – Apr 2024			
Maximum Marks: 30	Examination: In-Semester Examination	Duration: 1 Hr 15 Min	
Programme code: 06 Programme: B. Tech.	Class: FY	Semester: II (SVU R-2023 24-07-2023)	Set B
Name of the Constituent College: K. J. Somaiya College of Engineering		Name of the department: (Group P)	
Course Code: 216U06C105		Name of the Course: Engineering Drawing	

Question No.		Max. Marks
Q1	<p>The FV of a line AB is 50 mm long and is inclined at 50° to the XY line. The end point A is 15 mm above the HP and 20 mm in front of the VP. Draw the projections of line if it is inclined at 45° to the HP and located in the Ist Quadrant. Determine the true length and true inclinations of a line with the VP.</p> <p>Solution:</p>  <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 10px auto;"> T.L. = 54 $\theta = 23^\circ$ </div> <p>Distribution of Marks: Data plot: 02 M Solution: 04 M Dimensioning: 02 M</p>	8

OR

The F.V. and the T.V. of line AB measure 60 mm and 70 respectively. The line is 80 mm long. The point A is 20 mm above the HP and 10 mm in front of VP. Draw the projections of line AB and determine its inclinations with H.P. and V.P. Assume the line is in the Ist Quadrant.

Solution:



Distribution Marks:

Data plot: 02 M

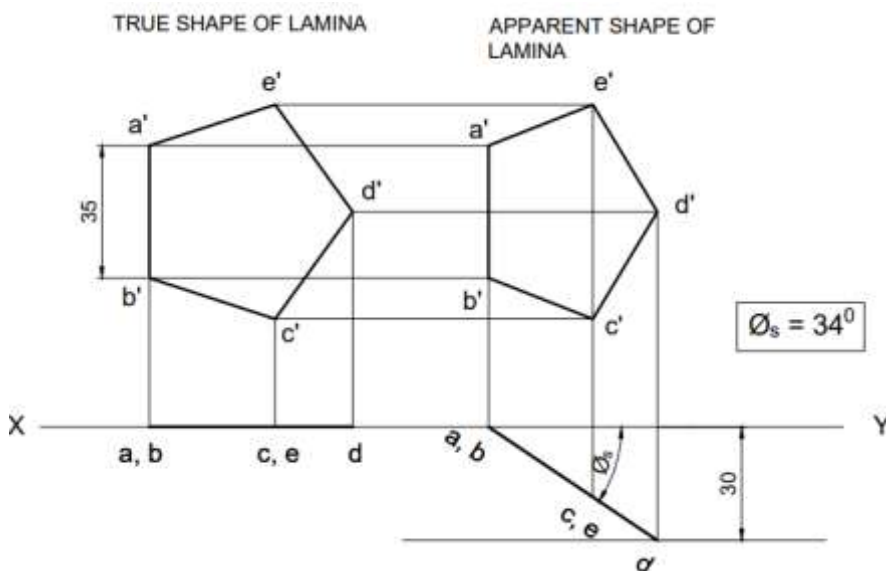
Solution: 04 M

Dimensioning: 02 M

Q2

A pentagonal plate of 35 mm side has one of its sides in the V.P. The corner opposite to this side contained by the H.P. is 30 mm in front of the V.P. Draw the projections and determine the inclination of a surface with the V.P.

Solution:



Distribution of Marks:

Stage I: 04 M

Stage II: 04 M

8

Q3

Figure shows a pictorial view of an Object. (Use First angle Projection method)

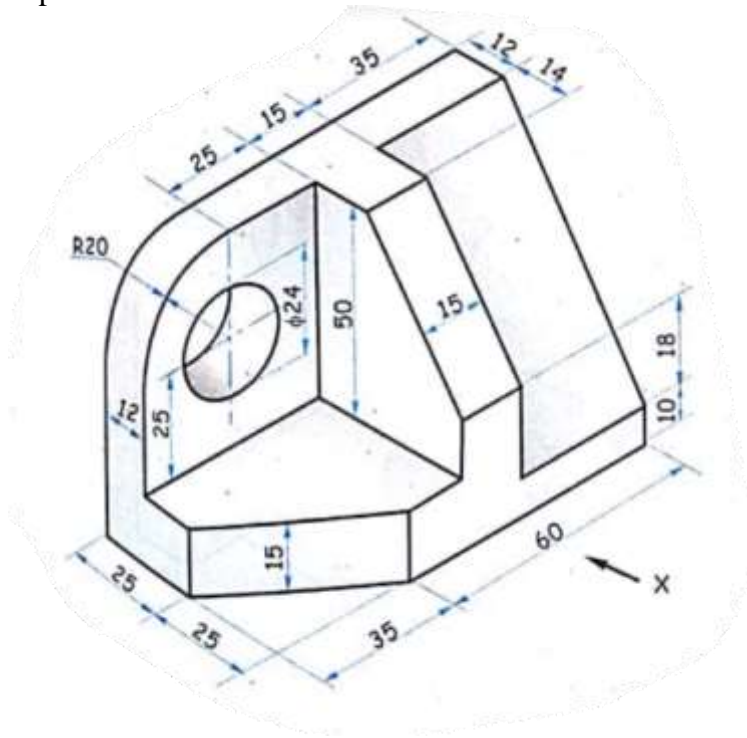
14

Draw :

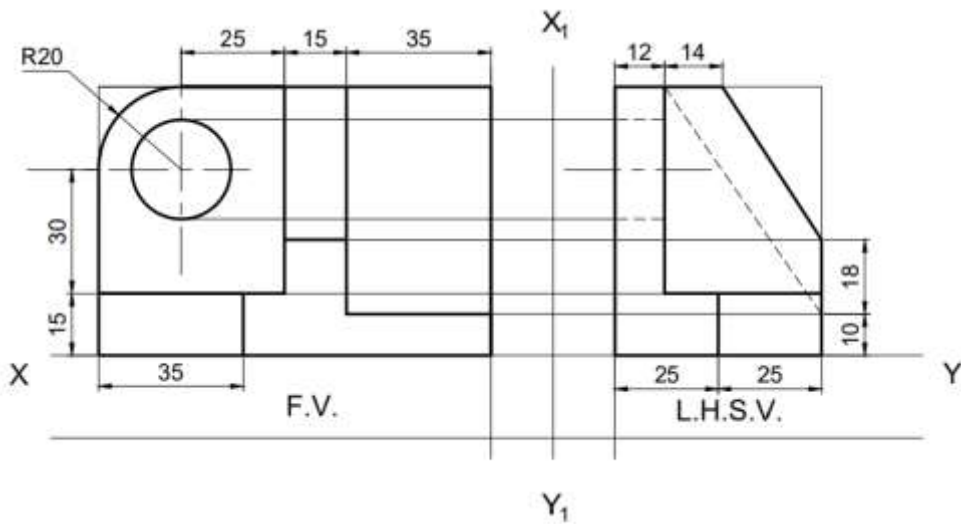
i) Front View;

ii) Left Hand Side View.

iii) Insert important dimensions.



Solution:



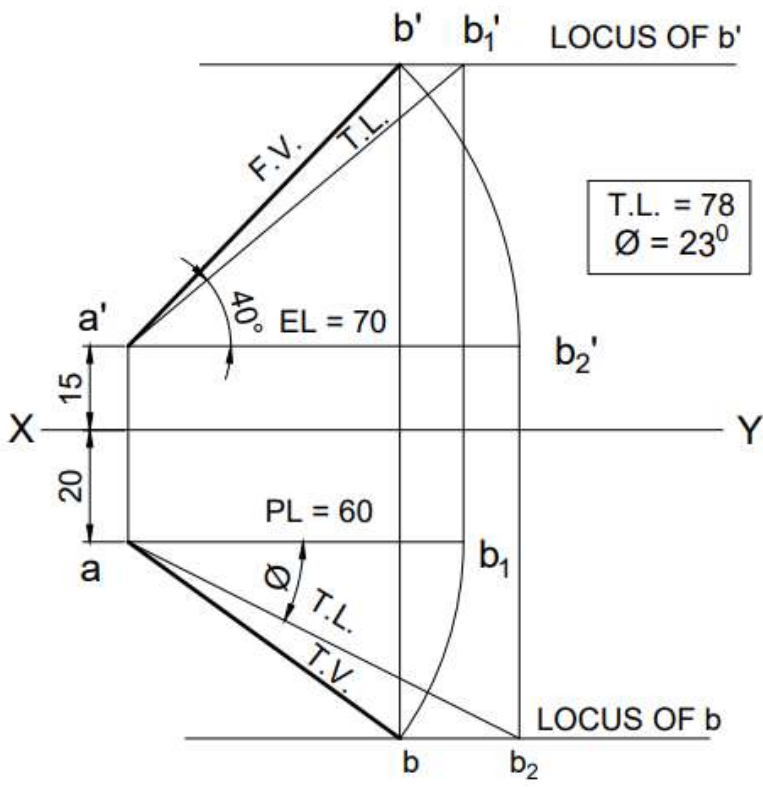
Distribution of Marks:

Front View: 06 M

Left Hand Side View: 06 M

Dimensioning: 02 M

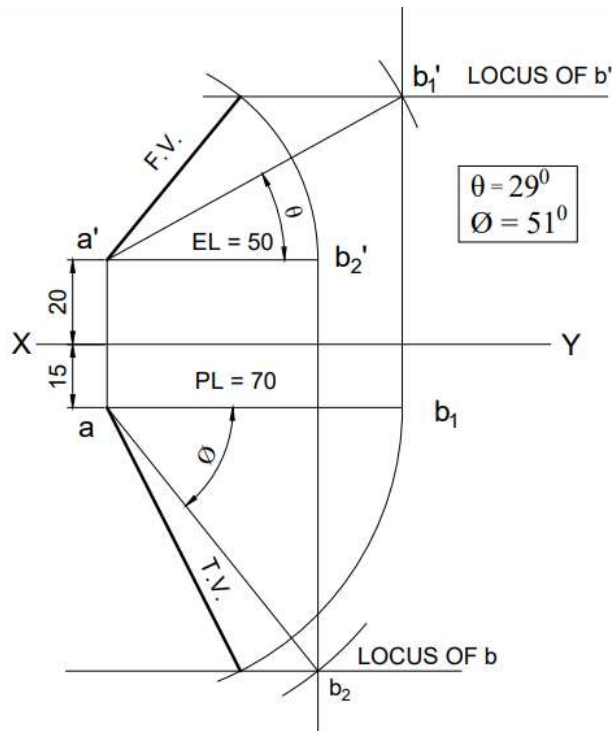
Semester: Jan 2024 – Apr 2024			
Maximum Marks: 30	Examination: In-Semester Examination	Duration: 1 Hr 15 Min	
Programme code: 06 Programme: B. Tech.	Class: FY	Semester: II (SVU R-2023 _24-07-2023)	Set C
Name of the Constituent College: K. J. Somaiya College of Engineering		Name of the department: (Group P)	
Course Code: 216U06C105		Name of the Course: Engineering Drawing	

Question No.		Max. Marks
Q1	<p>The elevation length and plan length of line AB measures 70 mm and 60 mm respectively. The line AB is inclined at 40° to the HP and the end point A is 15 mm above the HP and 20 mm in front of the VP. Determine the true length and inclination of a line with a V.P. Draw the projections of line AB.</p> <p>Solution:</p>  <p>Distribution Marks: Data plot: 02 M Solution: 04 M Dimensioning: 02 M</p>	8

OR

A line AB, 80 mm long, has its end A 20 mm above H.P. and 15 mm in front of V.P. Its top view and front view measures 70 mm and 50 mm respectively. Draw the projections of the line and determine its inclinations with H.P. and V.P.

Solution:



Distribution Marks:

Data plot: 02 M

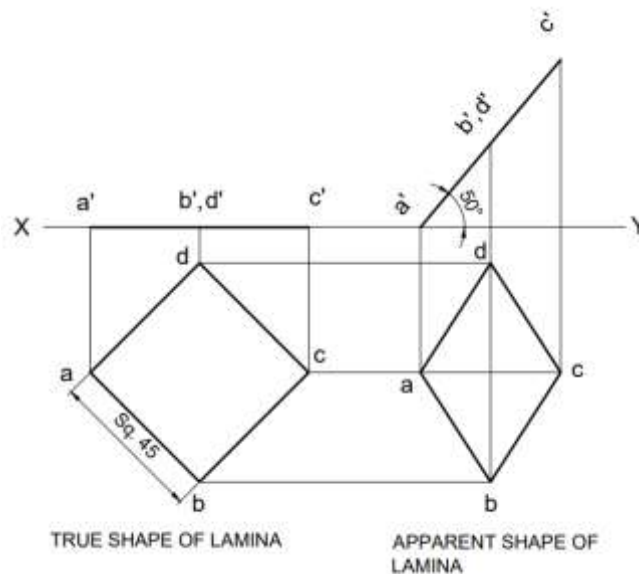
Solution: 04 M

Dimensioning: 02 M

Q2

A square plane ABCD with sides 45 mm has its surface inclined to the H.P. at an angle of 50° (θ_s) such that one of the corners of a square plane is in the H.P. Draw its projections.

Solution:



Distribution of Marks:

Stage I: 04 M

Stage II: 04 M

8

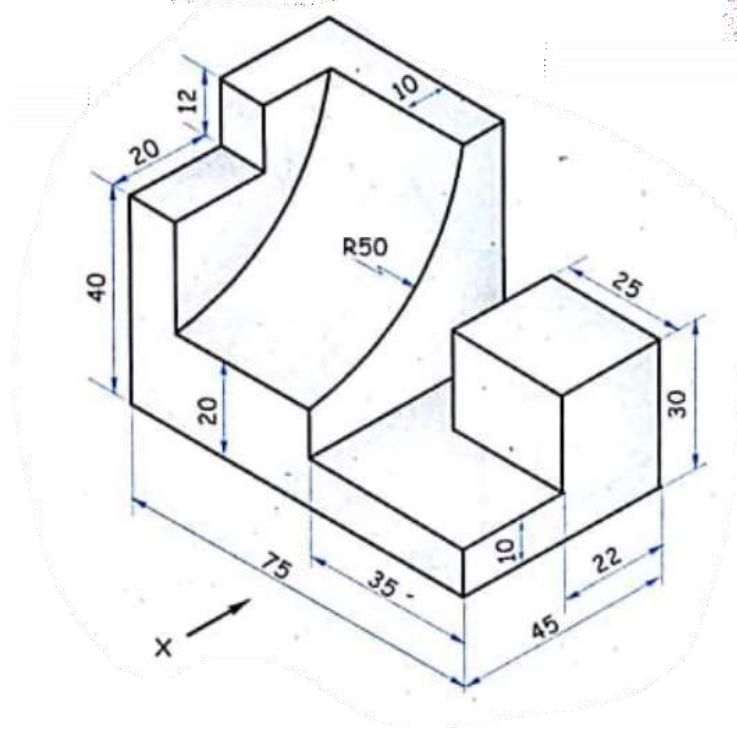
Q3

Figure shows a pictorial view of an Object. (Use First angle Projection method)

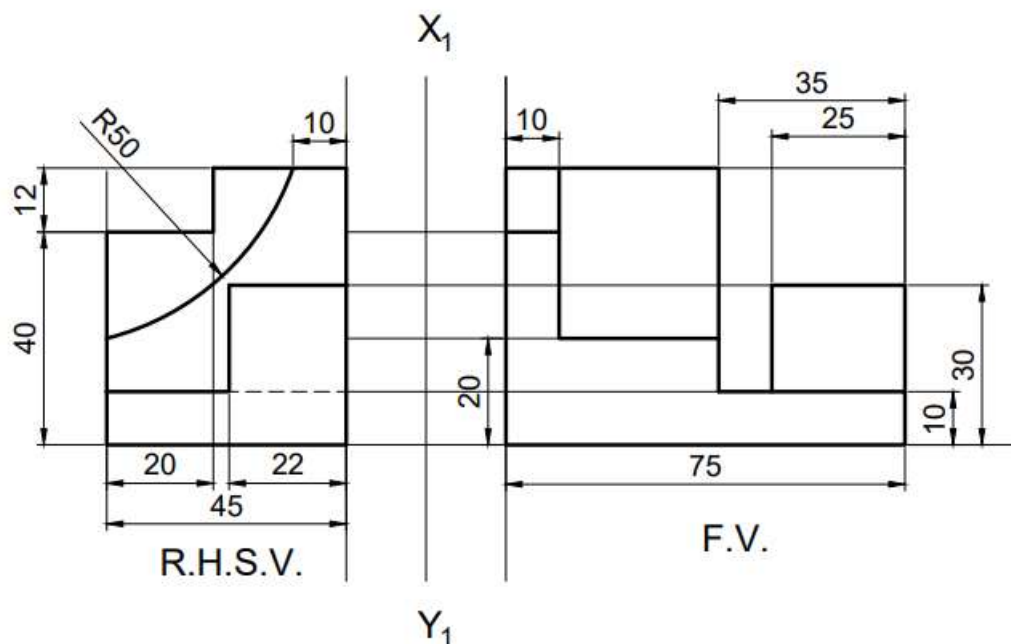
14

Draw :

- i) Front View;
- ii) Right Hand Side View.
- iii) Insert important dimensions.



Solution:



Distribution of Marks:

Front View: 06 M

Right Hand Side View: 06 M

Dimensioning: 02 M