Code No: R07A10191 **R07** **Set No. 2**

I B.Tech Examinations,December 2010
ENGINEERING GRAPHICS
Common to CE, ME, CHEM, MECT, MEP, AE, AME, MMT
Time: 3 hours **Max Marks: 80**
Answer any FIVE Questions
All Questions carry equal marks
⋆ ⋆ ⋆ ⋆ ⋆

1. Draw the isometric view of the object whose orthographic projections are given in figure 1. All dimensions are in mm. [16]

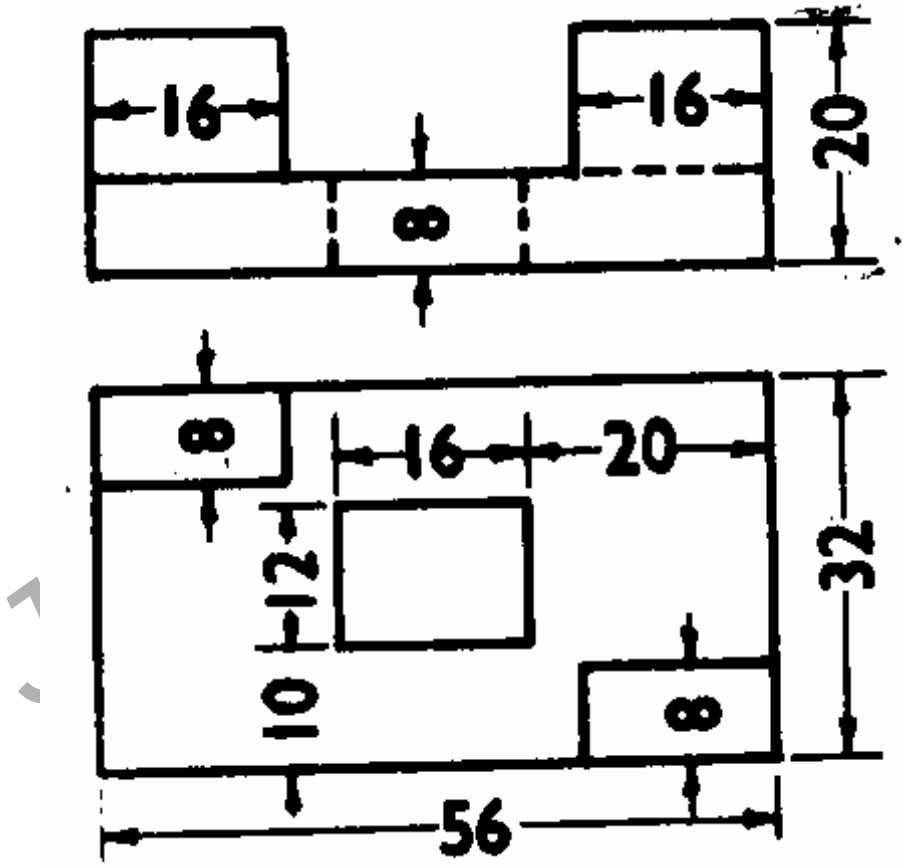

Figure 1

2. The sides of a parallelogram are 100 mm and 60 mm and the included angle is 55^0. Inscribe an ellipse and determine its major and minor axes and locate the foci.[16]

3. Draw the development of the lateral surface of the part P of the hexagonal pyramid, two sides of the base parallel to the V.P. As shown in figure 3. All dimensions are in cm.

[16]

Code No: R07A10191 **R07** **Set No. 2**

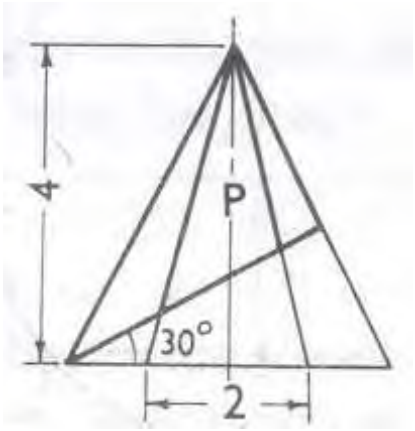

Figure 3

4. A rectangular pyramid, sides of base 55 mm × 20 mm and height 60 mm rests with its base on the ground plane such that one of the longer edges of the base is parallel to and 20 mm behind the picture plane. The station point is 40 mm in front of the picture plane, 60 mm above the ground plane and lies in a central plane which passes through the axis of the pyramid. Draw the perspective view. [16]

5. A horizontal cylindrical pipe 40mm diameter is joined with a vertical cylindrical pipe of same diameter. The axes of the pipes are parallel to VP. Neglecting the pipe thickness draw the projections showing the curves of intersection, when their axes intersect each other at right angles. [16]

6. Five equal spheres are resting on ground, each touching a face of a vertical pentagonal prism and adjacent spheres. Find the diameter of the spheres and draw the projections when a side of the base of the prism is perpendicular to VP. [16]

7. A 100 mm line AB, measures 70 mm in top view and 80 mm in profile view. The end A 80 mm from profile plane, 90 mm above HP and 30 mm infront of VP. Draw the front view and top view of the line and find its inclinations with HP and VP. [16]

8. Draw the following views of the object given in figure 8. All dimensions are in mm.
   (a) Front View
   (b) Top View and
   (c) Side View from the right. [16]

Code No: R07A10191 **R07** **Set No. 2**

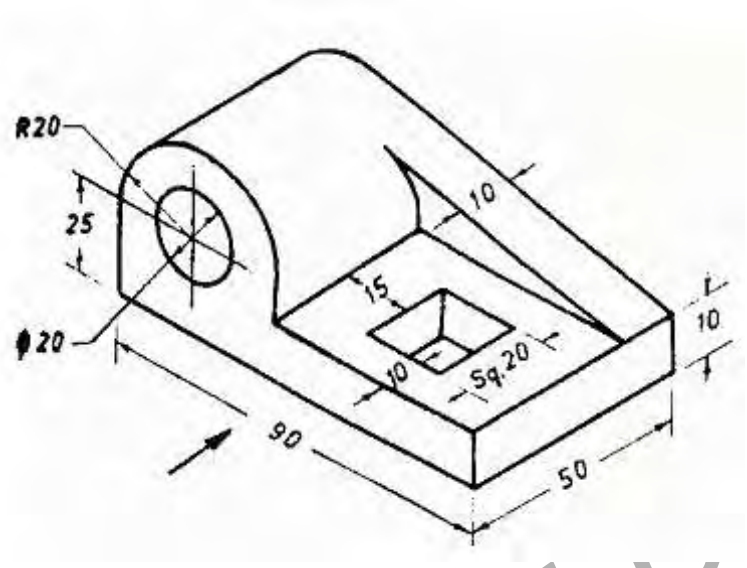

Figure 8

⋆ ⋆ ⋆ ⋆ ⋆

Code No: R07A10191 **R07** **Set No. 4**

I B.Tech Examinations,December 2010
ENGINEERING GRAPHICS
Common to CE, ME, CHEM, MECT, MEP, AE, AME, MMT
Time: 3 hours **Max Marks: 80**

Answer any FIVE Questions
All Questions carry equal marks

⋆ ⋆ ⋆ ⋆ ⋆

1. The sides of a parallelogram are 100 mm and 60 mm and the included angle is 55^0. Inscribe an ellipse and determine its major and minor axes and locate the foci.[16]

2. A 100 mm line AB, measures 70 mm in top view and 80 mm in profile view. The end A 80 mm from profile plane, 90 mm above HP and 30 mm infront of VP. Draw the front view and top view of the line and find its inclinations with HP and VP. [16]

3. A horizontal cylindrical pipe 40mm diameter is joined with a vertical cylindrical pipe of same diameter. The axes of the pipes are parallel to VP. Neglecting the pipe thickness draw the projections showing the curves of intersection, when their axes intersect each other at right angles. [16]

4. A rectangular pyramid, sides of base 55 mm × 20 mm and height 60 mm rests with its base on the ground plane such that one of the longer edges of the base is parallel to and 20 mm behind the picture plane. The station point is 40 mm in front of the picture plane, 60 mm above the ground plane and lies in a central plane which passes through the axis of the pyramid. Draw the perspective view. [16]

5. Draw the isometric view of the object whose orthographic projections are given in figure 5. All dimensions are in mm. [16]

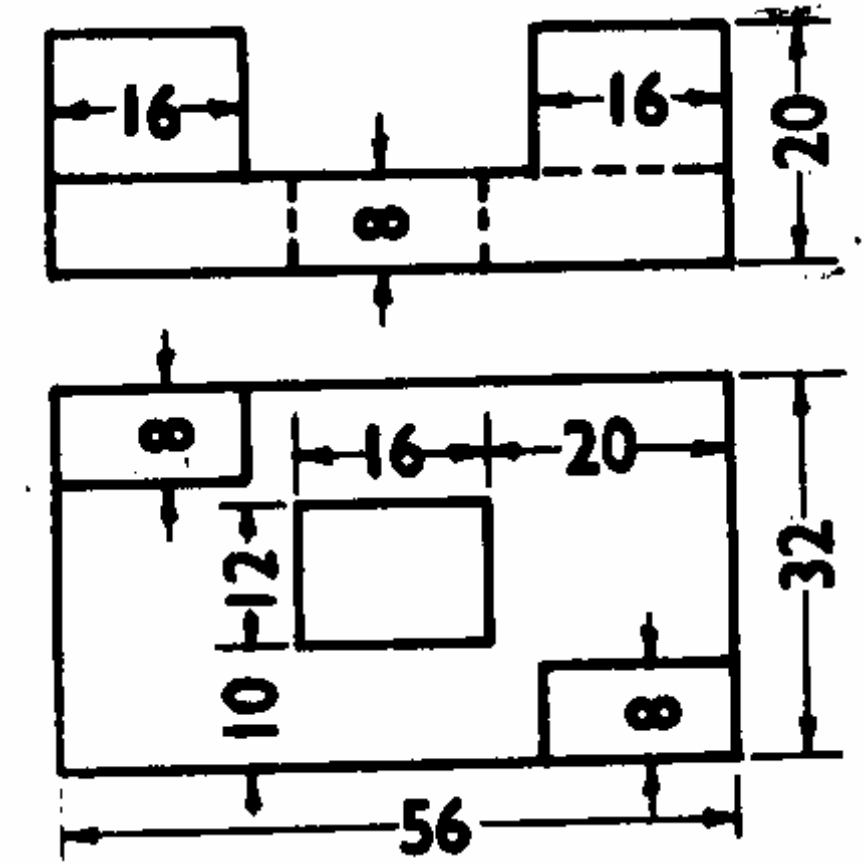

Figure 5

6. Draw the following views of the object given in figure 6. All dimensions are in mm.
   (a) Front View
   (b) Top View and
   (c) Side View from the right. [16]

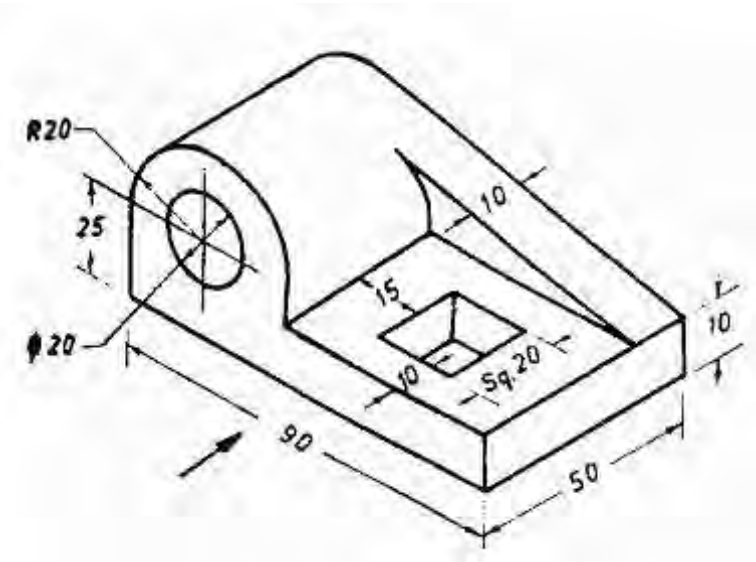

Figure 6

7. Five equal spheres are resting on ground, each touching a face of a vertical pentagonal prism and adjacent spheres. Find the diameter of the spheres and draw the projections when a side of the base of the prism is perpendicular to VP. [16]

8. Draw the development of the lateral surface of the part P of the hexagonal pyramid, two sides of the base parallel to the V.P. As shown in figure 8. All dimensions are in cm.

[16]

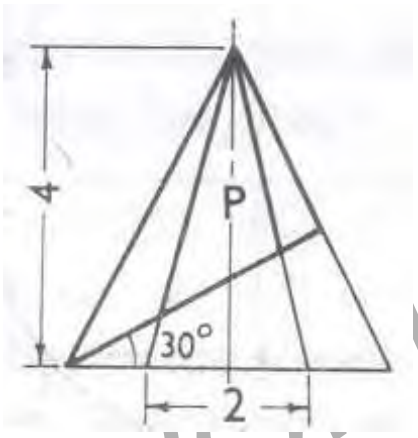

Figure 8

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Code No: R07A10191 **R07** **Set No. 1**

I B.Tech Examinations,December 2010
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Time: 3 hours **Max Marks: 80**
Answer any FIVE Questions
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⋆ ⋆ ⋆ ⋆ ⋆

1. A rectangular pyramid, sides of base 55 mm × 20 mm and height 60 mm rests with its base on the ground plane such that one of the longer edges of the base is parallel to and 20 mm behind the picture plane. The station point is 40 mm in front of the picture plane, 60 mm above the ground plane and lies in a central plane which passes through the axis of the pyramid. Draw the perspective view. [16]

2. Draw the isometric view of the object whose orthographic projections are given in figure 2. All dimensions are in mm. [16]

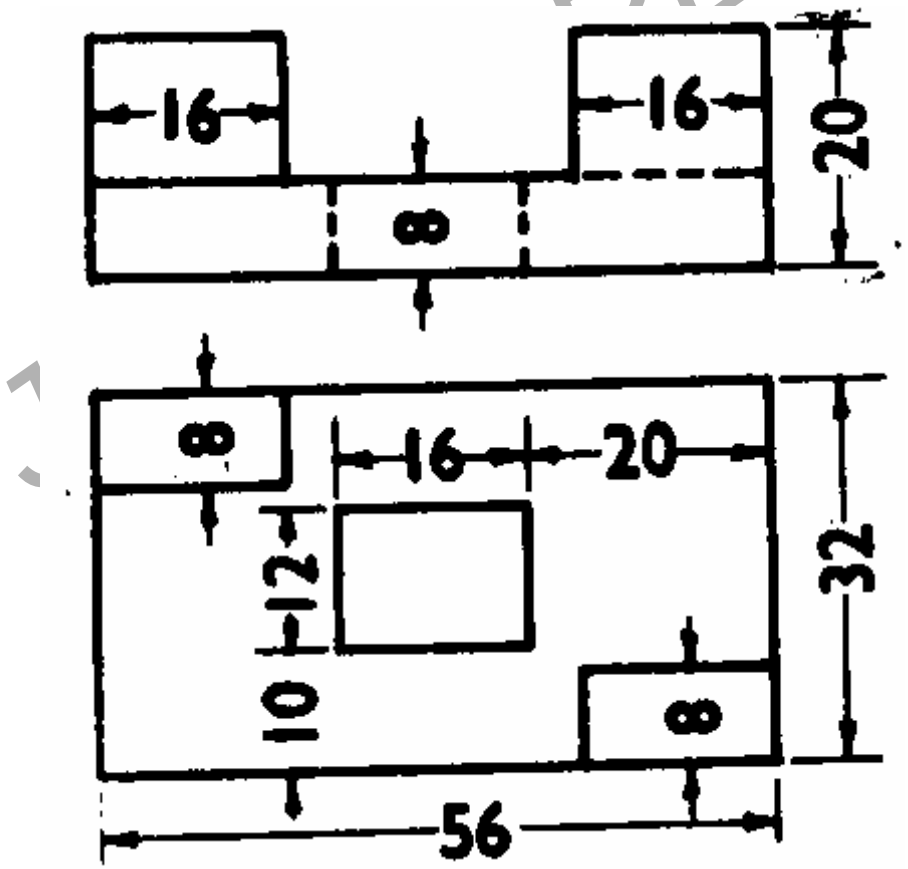

Figure 2

3. The sides of a parallelogram are 100 mm and 60 mm and the included angle is 55^0. Inscribe an ellipse and determine its major and minor axes and locate the foci.[16]

4. A horizontal cylindrical pipe 40mm diameter is joined with a vertical cylindrical pipe of same diameter. The axes of the pipes are parallel to VP. Neglecting the

pipe thickness draw the projections showing the curves of intersection, when their axes intersect each other at right angles. [16]

5. Draw the development of the lateral surface of the part P of the hexagonal pyramid, two sides of the base parallel to the V.P. As shown in figure 5. All dimensions are in cm. [16]

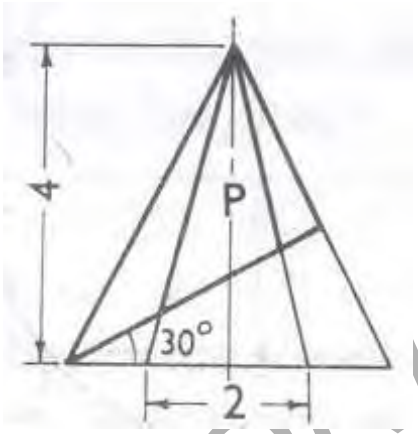

Figure 5

6. Draw the following views of the object given in figure 6. All dimensions are in mm.
   (a) Front View
   (b) Top View and
   (c) Side View from the right. [16]

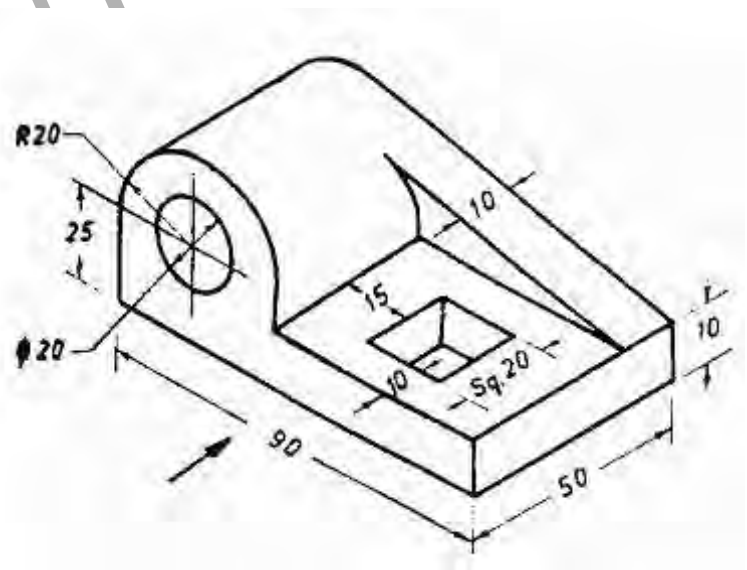

Figure 6

7. Five equal spheres are resting on ground, each touching a face of a vertical pentagonal prism and adjacent spheres. Find the diameter of the spheres and draw the projections when a side of the base of the prism is perpendicular to VP. [16]

Code No: R07A10191 **R07** **Set No. 1**

8. A 100 mm line AB, measures 70 mm in top view and 80 mm in profile view. The end A 80 mm from profile plane, 90 mm above HP and 30 mm infront of VP. Draw the front view and top view of the line and find its inclinations with HP and VP. [16]

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Code No: R07A10191 **R07** **Set No. 3**

I B.Tech Examinations,December 2010
ENGINEERING GRAPHICS
Common to CE, ME, CHEM, MECT, MEP, AE, AME, MMT

Time: 3 hours **Max Marks: 80**

Answer any FIVE Questions
All Questions carry equal marks

⋆ ⋆ ⋆ ⋆ ⋆

1. Draw the development of the lateral surface of the part P of the hexagonal pyramid, two sides of the base parallel to the V.P. As shown in figure 1. All dimensions are in cm.

[16]

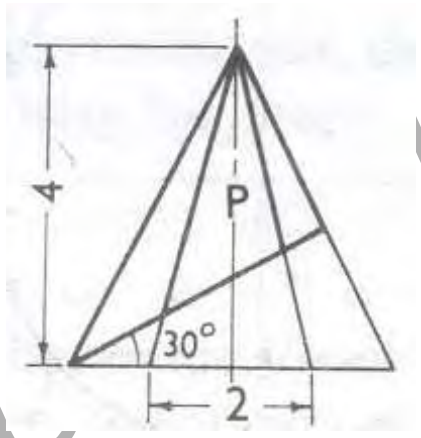

Figure 1

2. A 100 mm line AB, measures 70 mm in top view and 80 mm in profile view. The end A 80 mm from profile plane, 90 mm above HP and 30 mm infront of VP. Draw the front view and top view of the line and find its inclinations with HP and VP.

[16]

3. Draw the isometric view of the object whose orthographic projections are given in figure 3. All dimensions are in mm. [16]

Code No: R07A10191 **R07** **Set No. 3**

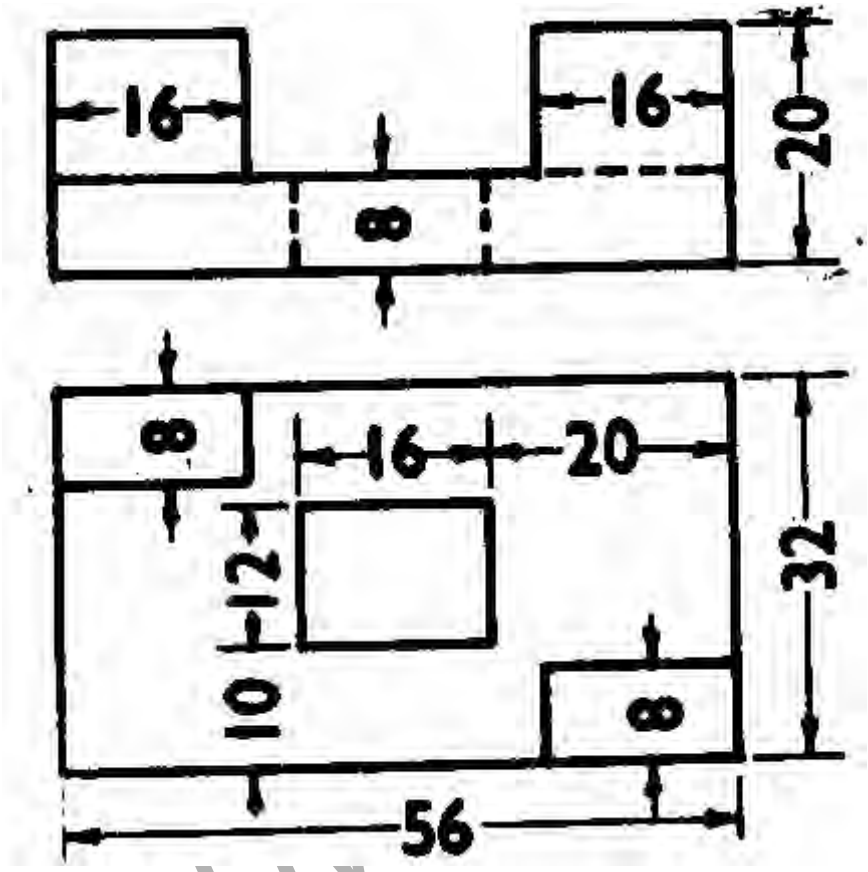

Figure 3

4. The sides of a parallelogram are 100 mm and 60 mm and the included angle is 55^0. Inscribe an ellipse and determine its major and minor axes and locate the foci.[16]

5. A horizontal cylindrical pipe 40mm diameter is joined with a vertical cylindrical pipe of same diameter. The axes of the pipes are parallel to VP. Neglecting the pipe thickness draw the projections showing the curves of intersection, when their axes intersect each other at right angles. [16]

6. Five equal spheres are resting on ground, each touching a face of a vertical pentagonal prism and adjacent spheres. Find the diameter of the spheres and draw the projections when a side of the base of the prism is perpendicular to VP. [16]

7. A rectangular pyramid, sides of base 55 mm × 20 mm and height 60 mm rests with its base on the ground plane such that one of the longer edges of the base is parallel to and 20 mm behind the picture plane. The station point is 40 mm in front of the picture plane, 60 mm above the ground plane and lies in a central plane which passes through the axis of the pyramid. Draw the perspective view. [16]

8. Draw the following views of the object given in figure 8. All dimensions are in mm.
   (a) Front View
   (b) Top View and
   (c) Side View from the right. [16]

Code No: R07A10191 **R07** **Set No. 3**

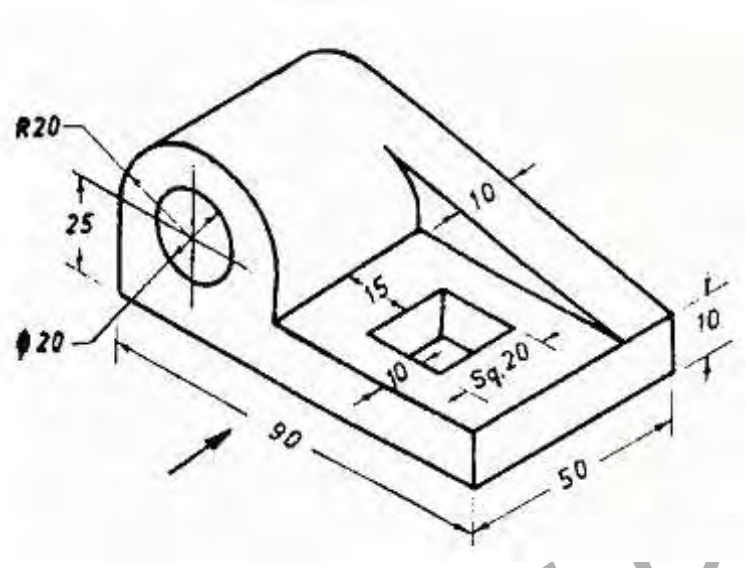

Figure 8

⋆ ⋆ ⋆ ⋆ ⋆