

Total No. of Pages : 03

B.Tech. (2011 Onwards) (Sem.-1,2)

Subject Code : BTME-102

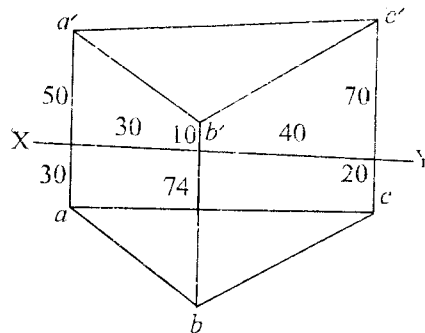
Max. Marks : 60

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION - B & C. have FOUR questions each.
3. Attempt any FIVE questions from SECTION B & C carrying EIGHT marks each.
4. Select atleast TWO questions from SECTION - B & C.

- What is the maximum size of circle that can be drawn by a bow compass?
- What do you mean by Single Stroke Gothic Lettering?
- What information should be contained in the title block of a drawing sheet?
- Draw 04 basic types of lines recommended by BIS.
- A solid with two identical ends is called _____.
- A cylinder is generated by the revolution of a _____ about its altitude.
- What do you understand by Frustum?
- Explain parallel dimensioning.
- What are the applications of the scale of chords?
- Intersection of plane surfaces and curves surface gives _____ (Line/Curve/Surface).

SECTION-B

2. Construct a backward vernier scale of R.F. $1/30$ to show meters, decimeters and centimeters. The scale is to be used to measure up to 4 m length. Mark the distance of 3m, 3dm and 5cm on the scale.
3. A cylinder 40 mm diameter and 50 mm axis is resting on one point of a base circle on VP while its axis makes 45° with VP and FV of the axis 35° with HP. Draw projections of the cylinder.
4. A regular pentagon of 30 mm side is resting on HP on one of its edges. Its surface is inclined at 45° to HP. Draw its projections of the lamina, when the side in HP makes 30° angle with VP.
5. Using auxiliary planes method, obtain the true shape of triangular lamina whose projections are given in figure below.



SECTION-C

6. A square prism of base 45 mm and height 20 mm rests centrally on the top face of a cylinder of 60 mm diameter and 30 mm height. Draw the isometric projects of the combined solid.
7. A sphere of diameter 75 mm rests on the HP. It is cut by an AIP inclined at 50° to the HP and 18 mm away from the centre of the sphere. Draw FV, sectional TV and true shape of the section.
8. A hexagonal prism is placed on the HP such that one of the edges of its base is parallel to the VP. The height of the prism is 50mm and its base edge is 30mm. A cutting plane inclined at 45° to the HP, passes through one of the corners at the top face of the prism. Draw the lateral development of the prism below the cutting plane.

9. Draw Front View, Top View and Right Hand Side View of the object shown in Figure.

