

PROJECTIONS OF POINTS

8

8-1 INTRODUCTION

A point is defined as a geometrical element that has no dimensions. In engineering drawing / graphics the point is represented as a dot. This chapter deals with the projections of points.

8-2 LOCATION OF A POINT

We know that the reference planes divide the space in four quadrants. A point lying in the space may be situated in the following positions with respect to principle planes of projections.

1. Point situated above the HP and in front of the VP.
2. Point situated above the HP and behind the VP.
3. Point situated below the HP and behind the VP.
4. Point situated below the HP and in front of the VP.
5. Point situated on the HP and in front of the VP.
6. Point situated above the HP and on the VP.
7. Point situated on the HP and behind the VP.
8. Point situated below the HP and on the VP.
9. Point situated on the HP and VP both.

MULTIPLE CHOICE QUESTIONS

Choose the most appropriate answer out of the given alternatives:

- i) The line joining the front and top views of a point is called
(a) Reference line (b) Projector (c) Connector (d) Locus
- ii) A point lying in the HP, has its top view above XY line. Its front view will be
(a) On XY line (b) Above XY line (c) Below XY line (d) Any of these
- iii) A point whose elevation and plan are above XY, is situated in
(a) First angle (b) Second angle (c) Third angle (d) Fourth angle
- iv) A point whose elevation is above XY line may be situated in
(a) First angle (b) Second angle (c) Vertical plane (d) Any of these

- v) A point is 20 mm below HP and 30 mm behind VP. Its top view will be
 (a) 20 mm below XY (b) 30 mm below XY
 (c) 20 mm above XY (d) 30 mm above XY
- vi) The front view of a point is 50 mm above xy line and the top view is 20 mm below the front view. the point lies in
 (a) First angle (b) Second angle (c) Third angle (d) Fourth angle
- vii) If both the front and the top views of a point lie on the opposite side of the reference line the point may be situated in following angles
 (a) First or second (b) First or third (c) Second or fourth (d) Third or fourth
- viii) If both the front and the top views of a point lie on the same side of the reference line the point may be situated in following angles
 (a) First or second (b) First or third (c) Second or fourth (d) Third or fourth
- ix) If top view of a point is situated 60 mm below the reference line and its front view is 20 mm above the top view, the point lies in
 (a) First angle (b) Second angle (c) Third angle (d) Fourth angle
- x) The front view of a point is 40 mm above xy and the top view is 50 mm below xy, the position of point is
 (a) 40 mm above HP (b) 40 mm below HP
 (c) 50 mm above HP (d) 50 mm below HP
- xi) State the position of a point the front view of which lies on the reference line and the top view is 40 mm above it.
 (a) 40 mm above HP and in the VP (b) 40 mm behind VP and in the HP
 (c) 40 mm below HP and in the VP (d) 40 mm in front of VP and in the HP
- xii) State the position of a point the top view of which lies on the reference line and the front view is 30 mm below it.
 (a) 30 mm above HP and in the VP (b) 30 mm behind VP and in the HP
 (c) 30 mm below HP and in the VP (d) 30 mm in front of VP and in the HP

Answer: (i) b (ii) a (iii) b (iv) d (v) d (vi) b (vii) b (viii) c (ix) d (x) a (xi) b (xii) c