

16

OBLIQUE PROJECTIONS

16-1 INTRODUCTION

Oblique projection is defined as a pictorial projection in which projectors are parallel to each other and inclined to the plane of projection at any angle other than right angle.

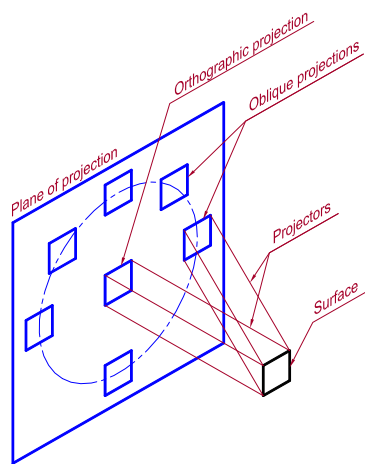


Fig. 16.1 Orthographic and oblique projections

In orthographic projections (both multi-view and axonometric) the projectors are parallel to each other and perpendicular to the plane of projection. Whereas in oblique projection the projectors, although parallel to each other, are oblique to the plane of projection. See Fig. 16.1. It may be seen that the face of an object parallel to the plane of projection will have the same appearance in both multi-view and oblique projections. To take this advantage, it is customary to have one of the faces of the object parallel to the plane of projection. This is the chief advantage of oblique projection over other forms of pictorial drawings.

MULTIPLE CHOICE QUESTIONS

Choose the most appropriate answer out of the given alternatives:

- i) The face of an object containing circles, irregular shapes etc. is kept parallel to the plane of projection is known as
 - (a) Isometric projection
 - (b) Perspective projection
 - (c) Oblique projection
 - (d) None of these
- ii) In an oblique projection, the front surface of the object is kept at an angle with respect to plane of projection is
 - (a) Perpendicular
 - (b) Parallel
 - (c) 45°
 - (d) either 30° or 60°
- iii) The drawings in which the receding lines are drawn to half the scale are called
 - (a) Isometric
 - (b) Cavalier
 - (c) Cabinet
 - (d) Perspective

- iv) The distortion in oblique projections can be decreased by
 (a) Placing the projection in correct scale
 (b) Reducing the length of the receding lines
 (c) Placing the projection obliquely to the plane of projection
 (d) Enlarging the dimensions parallel to the plane of projection
- v) In oblique projections, the receding lines meet the plane of projection at an angle
 (a) 0° (b) 30° (c) 90° (d) Less than 90°
- vi) To emphasize the features on the side of an object, the receding lines are drawn at the following angle to the plane of projection
 (a) 45° (b) 60° (c) Greater than 45° (d) Less than 45°
- vii) In oblique projections, a semi circle parallel to the plane of projection appears as
 (a) Semicircle (b) Semi-ellipse (c) Cycloid (d) Partial ellipse
- viii) The projectors in oblique projections are
 (a) Converging at plane of projection (b) Parallel to plane of projection
 (c) Inclined to plane of projection (d) Perpendicular to plane of projection
- ix) In the cavalier projection, an angle at which the projectors meet the plane of projection is
 (a) 30° (b) 45° (c) $63^\circ 26'$ (d) None of these
- x) In the cabinet projection, an angle at which the projectors meet the plane of projection is
 (a) 30° (b) 45° (c) $63^\circ 26'$ (d) None of these
- xi) In the general oblique projection, an angle at which the projectors meet the plane of projection is
 (a) 45° (b) $63^\circ 26'$ (c) 90° (d) None of these
- xii) While making cavalier projections the ellipse is preferably drawn by
 (a) Four center approximate method (b) Oblong method
 (c) Concentric circles method (d) Parallelogram method

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