

Major ExamCourse Title: Engineering Design Principles (EE-102)

MM: 50

Duration: 3 hours

Note:

1. Please follow all the *Instructions* given on the cover page of the answer book.
2. All parts of a question should be answered consecutively.
3. The question paper has **EIGHT** questions, and all the questions are compulsory.
4. Freehand drawing and incorrect dimensions will lead to deduction of marks.

Q.1 Projections of various points are given in Fig. 1. State the position of each point with respect to the planes of projection, giving the distances in centimeters. [5]

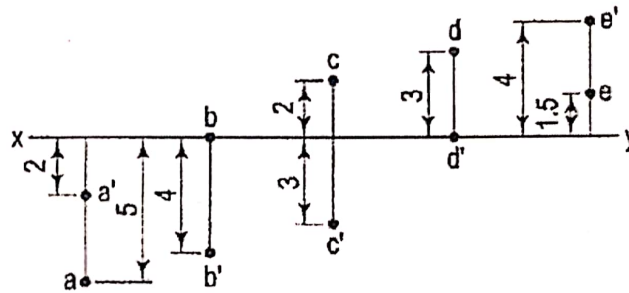


Fig. 1

Q.2 A point P is on HP and 35 mm in front of VP. Another point Q is on VP and below HP. The line joining their front views makes an angle of 30 degrees to XY line, while the line joining their top views makes an angle of 45 degrees with XY line. Find the distance of the point Q from HP. [5]

Q.3 A 100 mm long line is parallel to and 40 mm above HP. Its two ends are 25 mm and 50 mm in front of the VP respectively. Draw its projections and find its inclination. [5]

Q.4 A line PQ 80 mm length has its end P 30 mm above H.P and 25 mm in front of V.P. Line makes an angle of 30 degrees to H.P and 45 degrees to V.P. Draw the projection of line. [5]

Q.5 A rectangular plane 60 mm by 30 mm, has its shorter side in HP such that surface makes an angle of 45 degrees to HP. Draw its projection. [5]

Q.6 A thin pentagonal plate of negligible thickness and side 25 mm long is resting on one of its corner in VP and its surface makes an angle of 30 degrees with VP and side opposite to that corner makes an angle of 60 degrees with HP. Draw the projections. [5]

Q.7 A pentagonal Prism side of base 30 mm and height 60 mm resting on HP on One of its corner with a longer edge containing that corner is inclined at 45 degrees to HP and 30 degrees to VP. Draw the projection of prism. [10]

Q.8 Draw the isometric view of following given 2D view (Fig. 2). [10]

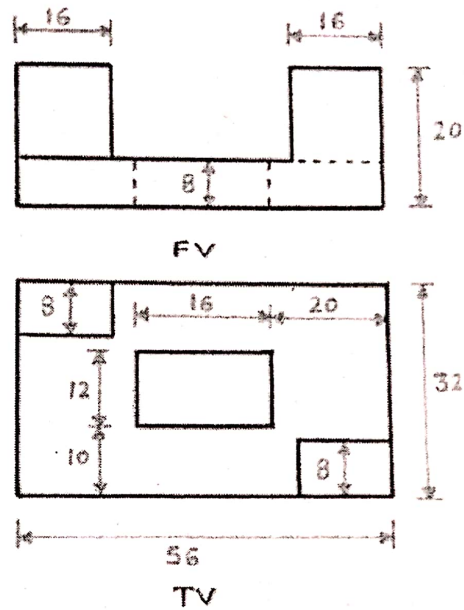


Fig. 2