11ME101 BASIC ENGINEERING DRAWING

Credits: 0:0:2

Course Objectives:
- To impart and inculcate proper understanding of the theory of projection.
- To improve the visualization skills.
- To enable the students with various concepts like dimensioning, conventions and standards related to working drawings in order to become professionally efficient.
- To impart the knowledge on understanding and drawing of simple residential/office buildings.

Course Outcomes:
- Students will be able to understand the theory of projection.
- Students will be able to know and understand the conventions and the methods of engineering drawing.
- Students will be able to improve their visualization skills so that they can apply these skills in developing new products.
- Students will be able to prepare simple layout of factory buildings.

List of Experiments
1. Lettering and Dimension practice
   a. Lettering according to standard practice with height 10, 7, 5 mm (Upper case, Lower case and Numbers)
   b. Dimensioning practice of lines, circles, arcs using Aligned and chain dimensioning systems.
2. Geometrical construction – I.
   a. Division of lines, arcs and angles
   b. Drawing arc connecting two straight lines which are perpendicular to each other and inclined.
3. Geometrical constructions -II
   a. Construction of polygons using
      1. Semicircle on the given side
      2. Semicircle and Bi-section of given side
      3. Inscribing polygon in a circle
      4. Special Method for Hexagon
5. Projection of points in different quadrants.
6. Projection of lines in first quadrant
   a. Parallel to both planes.
   b. Inclined to one plane and parallel to other.
   c. Parallel to one plane and perpendicular to other plane.
7. Projections of – prism, cylinder and cone -Parallel to both planes.
8. Projections of – prism, pyramid, cylinder, Cube and cone -Parallel to one plane and perpendicular to other plane.
10. Isometric views of basic solids and combination of basic solids.
12. Plan, Elevation and Section of single storied residential / office building with flat RCC roof and brick masonry walls having not more than two rooms. (Planning/ Designing is not expected in this course).

Text Books:

Reference Books: