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Mechatronics

18/ENG05/037

ENG 232 ASSIGNMENT

1) A sectioned surface on an engineering drawing is represented by thin section lines(/) usually at an angle of 45 degrees.
2) The principles of dimension an engineering drawing
   - Dimensions should not be duplicated, not the same given in two different ways.
   - Dimensions over or through objects should be avoided.
   - Dimensions should be located in adjacent views.
   - When dimensioning a circle it is measured with its diameter with a line through it, and arc by its radius.
   - Holes are located by their center lines, which may be extended and used as an extension line.
3) Half section: A half-section is a view of an object showing one-half of the view in section..

   Full section: When a cutting plane line passes entirely through an object, the resulting section is called a full section.

4) Leader lines is continuous in nature but to end it one would need to make us of an arrow to indicate the edge or end of the object e.g

5) Scale 5:1- When giving this scale to use it means that one should construct the drawing five times smaller than what is giving in the actual object of reference i.e the dimensions giving one should divide the by 5 and construct.

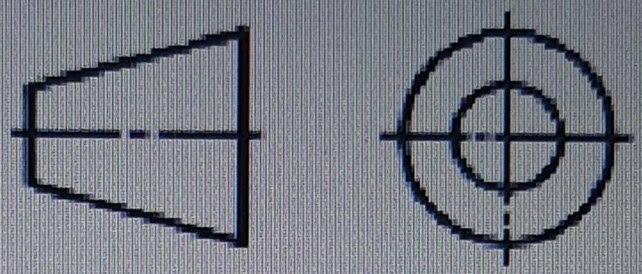
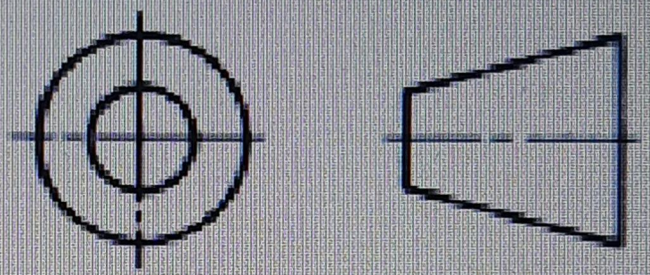
Scale 1:10- When giving this scale to use it means that one should construct the drawing ten times bigger r than what is giving in the actual object of reference i.e the dimensions giving, one should multiply the by 10 and construct.

6) Symbol identification
   - Radius- R
   - Diameter- Ø
   - Square-
   - Center line-
   - Long break-
   - Cutting plane line-
   - Spherical

7) Orthographic projection: a method of projection in which an object is depicted using parallel lines to project its outline on to a plane.

8) A projection of an object is said to be orthographic if it is able to depict the three views of an object that is the front, side and the top view.

9) First angle projection: In the first angle projection, the object is placed in the first quadrant meaning it's placed between the plane of projection and the observer.

Projection	Symbol
First angle	
Third angle	

Objective section

1) A – reference line
2) A- True
3) B- equally
4) A- 60 degrees
5) A- 60 degrees
6) D- bolt
7) A
8) B- 45 degrees
9) B- ellipse
10) A- ellipse
11) C- cylinder
12) A- cone
13) C- pivot bearing
14) C- 55 degrees
15) A- vertical plane