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18/Eng04/059

Elect/Elect

ENG232 Assignment.

1. Sectioned surfaces in drawings are represented using sectioning line is inclined at 45 degrees.

2 . Principles to be followed while dimensioning a drawing:

A. Dimension and extension lines are narrow continuous lines 0.35mm thick, if possible, clearly placed outside the outline of the drawing.

b. The extension lines should not touch the outline of the drawing feature and a small gap should be left, about 2-3mm, depending on the size of the drawing.

c. Arrowheads should be approximately triangular, must be of uniform size and shape and in every case touch the dimension line to which they refer.

d. Bearing in mind the size of an actual dimensions and the fact that there maybe be two numbers together where limits of size are quoted, then adequate space must be left rows and dimensions.

e. center lines must never be used as dimension lines but must be left clear and distinct

f. Dimensions are quoted in millimeters to the minimum number of significant figures.

g. To enable dimensions to be read clearly, figures are placed so that they can be read from the bottom of the drawing, or by turning the drawing in a clockwise direction, so they can be read from the right hand side.

h. Leader lines can be used to indicate where specific indications apply.

3. i. A half section is a section in which a cutting plane line is passed half way through an object, and one quarter of the object is removed.

ii. A full section is a section in which the cutting plane line passes entirely through an object.

4. Leader lines are terminated at the circumference.

5. a. scale=5:1 - The dimension of the drawing are 5 times larger than those of the object being represented.

b. scale=1:10 The dimensions of the drawing are a tenth of the dimensions of the actual object.

6. .a. Diameter – ø

b. Radius – R

c. Square - ²

d. spherical radius - SR

7. Elements considered while obtaining a projection

Front Elevation

Plan

Side elevation

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

8. A projection of an object is called an orthographic projection when multiple views of the object are represented.

9. A. First angle projection is a method of creating a 2D drawing of a 3D object. It uses the following principles:

i. The view from the front is in the middle

ii. The view from the right is on the left

iii. The view from the left is on the right

iv. The view from the top is on the bottom

v. The view from the bottom is on the top

vi. The view from the rear is from the far right.



B. The angle projection is a method of creating a 2D drawing from a 3D object which uses the following principles:

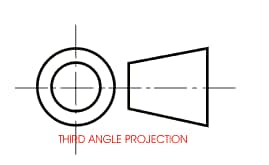
i. The view from the left is on the left

ii. The view from the right is on the right

iii. The view from the top is on the top

iv The view from the bottom is on the bottom

v. The view from the rear is at the far right



OBJECTIVE

1. Reference plane(A)
2. False(B)
3. Directly(C)
4. 120°(B)
5. 60°(A)
6. Rivet(B)
7. Crowning(C)
8. 45°(B)
9. A circle(A)
10. An Ellipse(A)
11. Cylinder(C)
12. Frustrum(D)
13. Pivot Bearing(C)
14. 55°(C)
15. Horizontal plane(D)