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1.Sention lines or cross-hatch lines are added to a section view to indicate the surfaces that have been cut by the imaginary cutting dane. They represent a sectioned surface on a drawing. Different sectioning lines are used for different materials.

2. PRINCIPLES OF DIMENSIONING.

- Avoid dimensioning through or over the object.
- All dimension, extension and leader lines should be thin, sharp, dark lines.
- Dimensions should be placed outside the outlines of the views of possible.
- Holes are located by the centre lines which may be extended as used as an extension line.
- A dimension line should never coincide with an object line or a centre line nor should it be a extension of these lines.
- Leader lines should never cross one another.

3a. HALF SECTION: When the cutting plane is assumed to bend at a right angle and cuts through only half of the represented object nor the full length.

b. FULL SECTION: When the imaginary cutting plane passes through the entire object, splitting the object drawn into two with the interior of the object revealed.

4. A leader line is a continuous thin line which can be terminated by different terminators. The British technical drawing standards relates to four different terminators used with leader lines.

5a. Scale= 5.1: A scale ratio is the ratio of the size of drawing to the size of the object, it means that the above scale ratio describes a drawing that is 5 times the size of the original object. This will enlarge the drawing size so that all details are clearly visible.

b. Scale =1.10: A scale ratio describes a drawing that is 10times less than the original object fits into the page.

6. (a)Diameter = Ø (circle with a line across)

(b)Radius = R

(c)Square =□

(d)Spherical radius = SR

(e)Cutting plane line = CL

(f)Long break

7. Elements to consider while obtaining projections.

I. The object.

II. The plane projection.

III. The point in space or point of sight.

IV. The projector or rays of sight.

What is an Orthographic projection?
An orthographic projection is one in which the projection are parallel to each other and intersected the plane of projection at right angles to it. All the projection lines are orthogonal to the projection plane.

8.When is the projection of an object called an orthographic projection?
Orthographic projection has two planes that intersect to form quadrants. When an object to be drawn is imagine to be placed in one of the quadrants and orthographic views of it are projected on the planes, it may be called an orthographic projection.

9a. First angle projection: This is a method used to obtain engineering drawings, mostly for orthographic projections. First angle projection method is when the object is placed in the first quadrant and is positioned in front of the vertical plane and above the horizontal plane.
b. Third angle projection: This method is used to represent three dimensional objects using a series of two-dimensional views. In the third angle projection, the object to be projected is placed in the third quadrant and is positioned behind the vertical plane below the horizontal plane.

MCQ QUESTIONS.

1. A
2. B
3. C
4. B
5. A
7. C
8. B
9. A
10. A
11. C
12. A
13. B
14. C
15. D