

OMENOKU PERPETUAL:18/ENG06/060 MECHANICAL ENGINEERING

THEORY

1.A sectional view is represented by hatching along the cutting plane at an angle of 45 degrees.

2. PRINCIPLES OF DIMENSIONING

- 1. The dimensions should be given on such view which illustrates the true shape and size of an object.
- 2. As far as possible the dimensions should be given outside a view but can be given inside as well if unavoidable.
- 3. All the dimensions are given in group form. Scattering of these is not correct.
- 4. The dimensions should be intelligibly written.
- 5. All the dimensions should be written parallel to the object line and the numbers should be written such that they could be read easily.
- 6. The dimensions should not be repeated unless necessary.
- 7. The unnecessary dimensions should be avoided.
- 8. The extension and dimension lines should not intersect in any case.
- 9. While giving dimension after completing a drawing, it should be kept in mind that no unit should be written with any number.

3 HALF SECTION:A half-section is a view of an object showing one-half of the view in section.A half section exposes the interior of one half of an object while retaining the exterior of the other half

FULL SECTION:this is a scale drawing of a section through a symmetrical object that shows the full object.

4.Leader lines can be separated by the use of arrows

5. scale 5:1 means that the object is 5 times bigger than the original size

scale 1:10 means that the object is 10 times smaller than the original size.

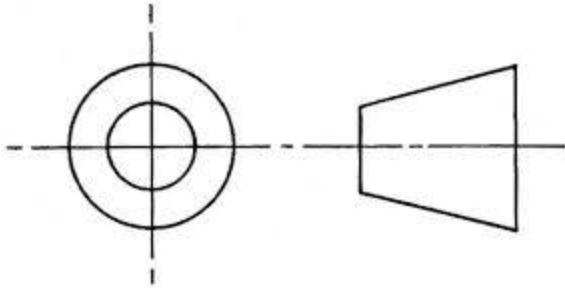
6. DIAMETER:The diameter symbol (\varnothing); RADIUS:R or r ; SPHERICAL RADIUS: SR; SQUARE \square ;

7a.Must be represented in an object that has two dimensional views,and as many that are necessary to give all informations needed.

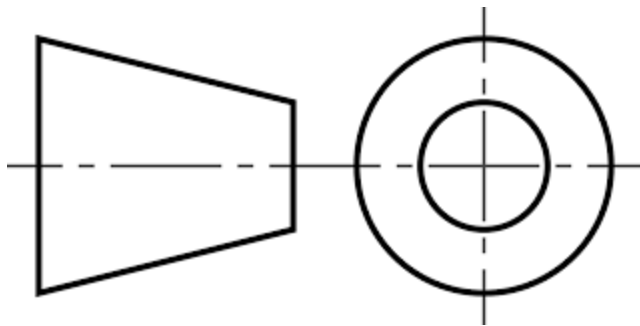
7b.ORTHOGRAPHIC PROJECTION:Is a common method of representing three-dimensional objects, usually by three two-dimensional drawings in each of which the object is viewed along parallel lines that are perpendicular to the plane of the drawing.

8 A projection is said to be orthographic if the object is been seen either a first/second angle projection showing the front and side elevation also with the plan.

9. THIRD ANGLE PROJECTION: The object is placed in the third quadrant.



FIRST ANGLE PROJECTION: In First Angle Projection we place our object in the First Quadrant. This means that the Vertical Plane is behind the object and the Horizontal Plane is underneath the object.



OBJECTIVE

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