NAME: ABUBAKAR HANNY OSHIOZOKHAI

MATRIC NO: 18/ENG05/003

DEPT: MECHATRONICS

COURSE CODE: ENG 232

ASSIGNMENT

ANSWERS

1. Section lines or cross-hatch lines can be used to represent a sectioned surface on a drawing

2. a. Dimensions should not be duplicated, nor should the same info be given in two different ways.
   b. Dimensions should be attached to the view that best shows the contour of the feature being dimensioned.
   c. Wherever possible avoid dimensioning to hidden lines.
   d. Avoid dimensions over or through the object.
   e. Wherever possible locate dimensions in adjacent views.
   f. In general a circle is measured by its diameter circle with line through it, and arc by its radius R0.5.
   g. Holes are located by their centerlines, which may be extended and used as an extension line.
   h. Holes should be located and sized in the view that shows that feature as a circle.

3. a. A **half-section** is a view of an object showing one-**half** of the view in **section**.
   b. If the imaginary cutting plane passes through the entire object, splitting the drawn object in two with the interior of the object revealed, this is called a "**full section**.

4. Leader lines should terminate:

   (a) with a dot, if they end within the outlines of an object,
   (b) with an arrow head, if they end on the outline of an object,
   (c) without dot or arrow head, if they end on a dimension line.

1. a. A **scale** of **5:1** means that everything is in reality five times as small. In other words: 1 cm in the drawing is 0.2 cm in reality.
   b. A drawing at a **scale** of **1:10** means that the object is 10 times smaller than in real life **scale** 1:1. You could also say, 1 unit in the drawing is equal to 10 units in real life.

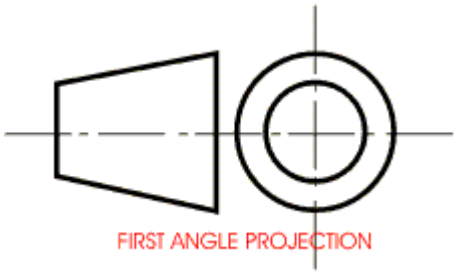
2. φ : Diameter
   R : Radius
   □ : Square
   SR : Spherical radius

3. Top view, or plan, and a front view and one side view (front and side elevations).

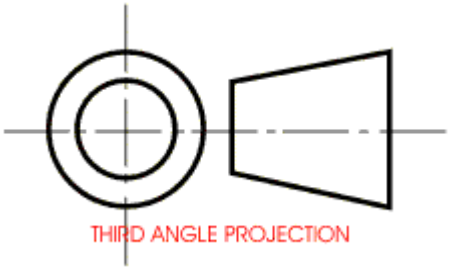
   Orthographic projection, common method of representing three-dimensional objects, usually by three two-dimensional drawings in each of which the object is viewed along parallel lines that are perpendicular to the plane of the drawing.

4. When it is a form of parallel projection, in which all the projection lines are orthogonal to the projection plane.

5. First angle projection is one of the methods used for orthographic projection drawings. In this projection method, the object is placed in the first quadrant and is positioned in front of the vertical plane and above the horizontal plane.



Third angle projection is another perspective projection method used to represent three-dimensional objects using a series of two-dimensional views. In third angle projection, the 3D object to be projected is placed in the third quadrant and is positioned behind the vertical plane and below the horizontal plane.



OBJECTIVES

1. a
2. b
3. c
4. b
5. a
6. b
7. c
8. b
9. a
10. a
11. c
12. a
13. b
14. c
15. d