

NAME: Okolo Victor Chukwuemeka

MATRIC NO: 18/ENGO2/076

DEPARTMENT: Computer Engineering.

COURSE CODE: ENG 232

TITLE: Engineering Drawing

1. Using section lines that are inclined at a 45 degree angle.

2. I) Dimensions shouldn't be duplicated or the same information will be given in two different ways .
- II) Unnecessary dimensions shouldn't be used - only the dimensions needed to create or inspect the part.
- III) Make sure to avoid dimensioning to hidden lines wherever possible.
- IV) Dimensions shouldn't be placed on the object unless that is the only option.
- V) A circle is dimensioned by its diameter, an arc by its radius.
- VI) Holes should be located by their center lines.
- VII) Holes should be located in the view that shows the feature as a circle.
- VIII) Dimensions should never be crossed.
- IX) Never cross extension lines.
- X) Overall dimensions should be placed the greatest distance away from the object so that intermediate dimension can nest closer to the object to avoid crossing extension lines.

3a) Half-section: A **half-section** is a **view** of an object showing one-**half** of the **view** in **section**. Symmetrical parts can be shown in **half sections**. **Half sections** are commonly used to show both the internal and outside **view** of symmetrical objects. The cutting plane is off-set to include features that are not in a straight line.

b) Full-section: In the event that the imaginary cutting plane goes through the whole article, parting the attracted object two with the inside of the item uncovered, this is called a "**full section**." A **full section** is the most widely-used sectional view.

4. A leader line additionally has a terminator and some content. It might have a reference line under the content. A bolt eliminator is utilized to highlight an edge of a thing. The speck is utilized to highlight a face. The Architectural tick can be used for referring to multiple parallel edges.

5a. 5:1 scale: Used for enlarging the object 5 times its original size (Enlargement Scale).

b. 1:10 scale: Used to reduce the object 10 times its original size (Reduction Scale).

6a.  $\Phi$

b. R

c.

d. SR

7a) Front View

b) Side View

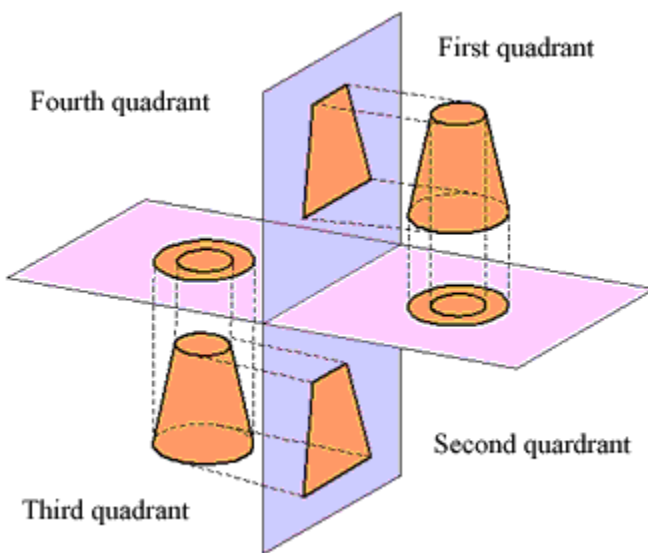
c) The Plan

An orthographic drawing is a clear and detailed way to represent the image of an object.

8. It is called orthographic projection when the principal planes or axes of an object in an orthographic projection are not parallel with the projection plane

9a) 1<sup>st</sup> Angle Projection: It is a strategy for making a 2D drawing of a 3D object. It is mostly utilized in Europe and Asia and has not been authoritatively utilized in Australia for a long time. In Australia, third edge projection is the favored technique for orthographic projection. Note the image for first point orthographic projection.

b) 3<sup>rd</sup> Angle Projection: is a method of orthographic projection which is a technique in portraying a 3D design using a series of 2D views. For the third edge projection, the article is set underneath and behind the review planes meaning the plane of projection is between the viewer and the object.



## Objective Answers

1. A

2. A

3. C

4. B

5. A

6. B

7. C

8. B

9. A

10.A

11. C

12.A

13.C

14.C

15.D