**LAWAL ATINUKE**

**18/ENG01/013**

**CHEMICAL ENGINEERING**

**ENG 232 ASSIGNMENT ENGINEERING DRAWING**

1. How do you represent a sectioned surface on a drawing?

When sketching an object or part that requires a sectional view, they are drawn by eye at an angle of approximately 45 degrees, and are spaced about 1/8” apart. Since they are used to set off a section, they must be drawn with care. Its best to use the symbol for the material being shown as a section on a sketch.

1. List the principles to be followed while dimensioning.

* Dimensions should not be duplicated
* They shouldn’t be attached to the view that best shows the contour of the feature being dimensioned.
* Wherever possible avoid dimensioning to hidden lines.
* Avoid dimensioning over or through the object
* Wherever possible locate dimensions in adjacent views
* In general a circle is measured by its diameter circle with line through it, and arc by its radius
* Holes are located by their centerlines, which may be extended and used as extension line.

1. Explain the terms half section, full section.

A half section is a view of an object showing one-half of the view in section.

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.

1. How are leader lines terminated

A leader line is a line that establishes a connection between a graphical representation of an item and some text. A leader line also has a terminator and some text.

1. What do you understand by, a. scale 5:1 b. scale 1:10

A 50mm line is to be drawn at a scale of 1:5 i.e 5 times more than its original size. The measurement 50mm is multiplied by 5 to give 250mm. a 250mm line is drawn.

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 10 units in real life.

1. Give the shape identification symbols for the following.
2. Diameter :Ǿ
3. Radius : r
4. Square :ˆ
5. Spherical radius : R
6. What are the elements to be considered while obtaining a projection.

Rear projection screen, data projector, video camera, high resolution still camera and computer.

1. When is the projection of an object called an orthographic projection.

Orthographic projection is a means of representing three dimensional objects in two dimensions. It is a form of parallel projection, in which all the projection lines are orthogonal to the projection plane.

1. Explain first angle and third angle projection.

Orthographic projection is a way of drawing an 3D object from different directions. Usually a front, side and plan view are drawn so that a person looking at the drawing can see all the important sides. Orthographic drawings are useful especially when a design has been developed to a stage whereby it is almost ready to manufacture.

There are two ways of drawing in orthographic –First Angle and third Angle. They differ only in position of the plan , front and side views.

1. To project the auxillary view, an imaginary line is used known as…….

Ans; reference line

1. Reference plane is parallel to the direction of the view…….

True

1. Dimension of one side of the inclined surface can be…….. projected on the reference plane.

Directly

1. In isometric projection the three edges of an object are inclined to each other at ?

120 degrees

1. Which one among the following represents a permanent fastener?

Bolts

1. The convexity provided on the rim of the solid web cast iron pulley is called?

Crowning

1. Section lines are generally inclined with the base at an angle of?

60 degrees

1. The isometric view of a sphere is always?

A circle

1. In isometric projection, the four center method is used to construct?

An ellipse

1. With respect to the elevation and plan given, name the solid.

Cylinder

1. With respect to the front view and top view given, name the solid.

Cone

1. A footstep bearing is a?

Journal bearing

1. The angle between the flanks of B.S.W thread is?

55 degrees

1. Top view is projected on the?

Vertical plane.