Theory Questions

- 1. A sectioned surface on a drawing is represented by evenly spaced lines, inclined at an angle of 45 degrees to the horizontal.
- 2. Dimension lines must be thin continuous lines, placed clearly outside the outline of the drawing.

Dimension lines should be placed approximately 1cm from the drawing outlined. Arrow heads must be triangular and touch the projection lines to which they refer. Where two or more parts are to be dimensioned on the same side, the dimension lines must be evenly spaced at a distances of 1cm.

Dimensions are quoted in millimeters to the minimum number of significant figures, wit the values written on the dimension lines' inner spaces.

Leader lines should be used to indicate were specific dimensions apply.

3. a.) <u>Half section</u> : A half section is a view of an object, showing one-half of the view in section, with diagonal lines on the sectioned part to show the area that was theoretically cut.

b.) <u>Full section</u> : A full section is the most widely used view. It shows the interior parts of an object when an imaginary cutting plane passes through an object, splitting it in two.

- 4. Leader lines are terminated with a dot, if they end within the outlines of an object; with an arrow head if they end on the outline of an object; without a dot or arrowhead if they end on a dimension line.
- 5. a.) Scale 5:1 means that the drawing is five times as large as than the object in real life.b.) Scale 1:10 means that the drawing is 10 times smaller than the object in real life.





b.) Radius : R



c.) Square :

d.) Spherical radius : SR



7. Front view

End view

Plan

An 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.

- 8. A projection of an objection can be called an orthographic projection when depictions of the object show the principal axes or planes of the object are also parallel with the projection plane.
- 9. a.) First angle projection : the top view (plan) is placed below while the front view is upward and the side view (end) is by the side of the front view.



b.) Third angle projection : the top view (plan) is upward while the front view is downward and the end view is beside the front view.



Multiple Choice Questions.

- 1. a.) Reference plane
- 2. a.) True
- 3. d.) Normally
- 4. a.) 60°
- 5. a.) 60^o
- 6. b.) Rivet
- 7. c.) Crowning
- 8. b.) 45°
- 9. b.) Ellipse
- 10.a.) an ellipse
- 11.c.) Cylinder
- 12.a.) a cone
- 13.c.) pivot bearing
- 14.c.) 55°
- 15.d.) Horizontal plane