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18/ENG02/072
ENG 232 - Engineering drawing
Computer Engineering

1 How do you represent a sectioned surface on a drawing?
To represent a sectioned surface, the arrows should be drawn and pointed out neatly which provides an indication of which view the sectioned surface is most appropriately viewed.

2 List out the various principles to be followed while dimensioning a drawing.
i) All dimension, extension and leaderlines should be thin, sharp, dark lines
ii) Each dimension should be terminated by arrowheads touching the extension lines and pointing in opposite directions.
iii) All dimensions should be given in decimal format.
iv) A dimension line should never coincide with an object line or a centre line, nor should it be an extension of these lines.
v) Where there are several parallel dimension lines in a group, the dimension figures should be staggered so they won't interfere.
vi) Dimensions are preferably placed outside the outline of the views.
vii) Dimensions shown with dimension lines and arrowheads should be placed to read from the bottom of the drawing.

3 Explain term i) half section ii) Full section
A half section view is a view of an object showing one-half of the view in section ~~as~~ They are used to show both the internal and ~~A~~outside view of symmetrical objects.

Full section: A full section is the most widely used sectional view. If the imaginary cutting plane passes through the entire object, splitting the drawn object in two with the interior of the object revealed.

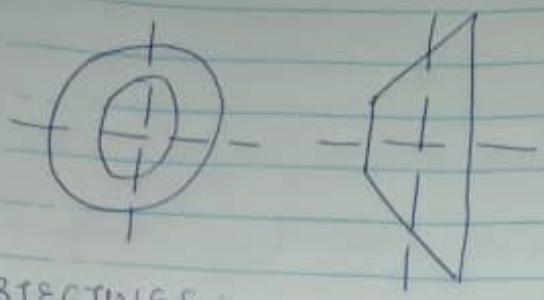
4. How are leader lines terminated?
They are most often terminated with an arrow head. They should not be constructed such that there are no crossing leaders or no excessively long leaders.

5. What do you understand by a) scale = 5:1 b) scale = 1:10
A drawing at a scale of 1:10 means that the object is 10 times smaller than in real life scale 1:1 or 1 unit in the drawing is equal to 10 units in real life.
A drawing at a scale of 5:1 means that it is 5 times more than its original size.

6. Give the shape identification symbols for the following a) diameter b) radius c) square d) spherical radius
diameter = ϕ
radius = R
square = SQ
spherical radius = SR

7. What are the elements to be considered while obtaining a projection and what is an orthographic projection.
Orthographic projection: This is a method of projection in which an object is depicted using parallel lines to project its outline onto a plane.

SYMBOL:



OBJECTIVES

1. To project the auxillary views, an imaginary plane known as reference plane (A)

2. Reference plane is parallel to the direction of view
False (B)

3. Dimension of one side of the inclined surface can be ~~on the reference plane~~ plotted directly (C)

4. In isometric projection, the three edges of an object are inclined to each other at 120° (B)

5. The angle between the flanks of a metric thread is 60° (A)

6. Which one among the following represents a permanent fastener
Rivets

7. The convexity provided on the rim of the solid web cast iron pulley is called
Crowning (C)

8. B

9. Circle (A)

10. Ellipse (A)

11. Cylinder

12. Frustum

13. Pivot bearing (C)

14. 55°(c)

15 Horizontal plane (D).