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DEPT: ELECT-ELECT

ANSWERS

1. A sectioned surface on a drawing is represented on a drawing using cutting lines , to show that it's been sectioned, and also cross hatches

2. RULES FOR DIMENSIONING

    - Dimension lines and extension lines should be narrow continuous lines 0.35mm thick, if possible, clearly placed outside the outline of the drawing
    - The extension lines should not touch the outline of the drawing feature and a small gap should be left, about 2-3 mm, depending on the size of the drawing
    - Arrow heads should be approximately triangular, must be uniform size and shape and in every case touch the dimension lines to which they refer. Arrow heads drawn manually should be filled in. arrow heads drawn by machine should not be filled in.
    - Adequate space must be left between rows of dimensions and the actual of the dimension and the fact that there may be two numbers together where limits of size are quoted should be kept in mind.
    - Center lines must never be used as dimension lines but must be left clear and distinct. They can be extended, however, with the use of extension lines.
    - Dimensions should be quoted in millimeters to the minimum numbers of significant figures. For example 12 and not 12.0 and the case of decimal dimensions, a nought should always be used for example 0.4 and not .4.
    - Figures are to be kept so they can be read from the bottom of the drawing, or by turning the drawing in a clockwise direction, so that they can be read from right hand side andto enable them to be read clearly
    - Leader lines are used to indicate where specific indicates apply. The leader line to the hole is directed toward the center point, terminating at the circumference in an arrow. A leader line for a part number terminates in a dot within the outline of the component

3. TERMS:

    a) HALF SECTION: a half section is one in which a sectioned view may be drawn in half of the figure and the outside may be drawn in the other half. It eliminates the necessity to introduce dot to lines for holes and the recess

    b) FULL SECTION: This is one in which the entire object is sectioned along a particular axis

4. HOW LEADER LINES ARE TERMINATED?

    A leader line terminated either in an arrowhead or a dot. The arrowhead touches the outline, while the dot is placed within the outline of the outlined object.

5. SCALE

    - 5:1

      This means that the representation of the figure, diagram or construction is 5x larger than the original object in question. In other words for every 1 unit of the original drawing, it will be represented as 5 units on our drawing

    - 1:10

      This means that the representation of the figure is 10x smaller than that of the original figure. In other words for every 10 units of measurement of the original figure, it will be represented by 1 unit on our representation.

6. IDENTIFICATION SYMBOLS:

    - DIAMTER-ϕ
    - RADIUS- R
    - SQUARE-
    - SPHERICAL RADII- SR

a) CENTRE LINE: - - - - - - - - - - - - - - -

b) CUTTING PLANE LINE: ↑_ _ _ _ _↑

c) LONG BREAK:

7. ELEMENTS TO BE CONSIDERED IN PROJECTION:

- The projection angle
- Type of projection

WHAT IS AN ORTHOGRAPHIC PROJECTION: This is a method of projection in which an object is depicted using parallel lines to project its outline on to a plane

8. WHEN IS A PROJECTION OF AN OBJECT CALLED AN ORTHOGRAPHIC PROJECTION:

It's when a three dimensional object is represented in two dimensional form that is a parallel projection, in which all the lines are orthogonal to the projection plane, resulting in every plane of the scene appearing in affine transformation on the viewing surface

9. EXPLAIN THE FOLLOWING

FIRST ANGLE PROJECTION:

This is when an object is placed in the first quadrant, meaning its placed between the plane of projection and the observer.

THIRD ANGLE PROJECTION:

The object is placed below and behind the viewing lanes meaning the plane of projection is between the observer and the object

OBJECTIVES

1. c
2. a
3. b
4. b

5. a
6. b
7. C
8. B
9. B
10. A
11. C
12. A
13. c
14. c
15. d