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THEORY

1. How do you represent a sectioned surface on a drawing?
 - Sectioning is the dividing of objects to give the viewer further details of the interior of said object. A section of an object is produced by cutting an object by an imaginary plane, removing one or more parts and thus revealing a view of the effects of the dissection. They are represented by a cut on the drawing elevations usually with long-short dashes line.



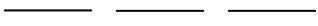
2. List out the various principles to be followed while dimensioning a drawing.
 - a. The dimensions should be given on such view which illustrates the true shape and size of an object.
 - b. All the dimensions are given in a group form, scattering of these is not correct.
 - c. The dimensions should be intelligibly written.
 - d. All the dimensions should be written parallel to the object line and the numbers should be written such that they could be easily read.
 - e. The unnecessary dimensions should be avoided.
 - f. The extension and dimension lines should not intersect in any case.
 - g. The numbers should be clear, legible, and intelligible.
 - h. The circle, arcs, and wholes should be compatible with their radius diameter.
 - i. The Leader Line should be used for writing dimensions of the circles which should illustrate their diameters.
 - j. Dimensions should be represented from the visible outlines, rather than from hidden lines.

3. Explain the terms:
 - a. Half section: It is a view of an object showing one-half of the view in section.
 - b. Full section: It is a view of an object when a cutting plane line passes entirely through an object.

4. How are leader lines terminated?
 - They are terminated by using arrow heads.

5. What do you understand by, (a) scale = 5:1 and (b) scale = 1:10?
 - a. Scale = 5:1 is multiplying the actual size of the drawing by 5 therefore increasing the actual size.
 - b. Scale = 1:10 is multiplying the actual size of the drawing by 1/10 therefore decreasing the actual size.

6. Give the shape identification symbols for the following:

- (a) Diameter: \emptyset
 - (b) Radius: R
 - (c) Square: \square
 - (d) Spherical Radius: SR
- a. Centre line 
- b. Cutting plane line 
- c. Long break 

7. What are the elements to be considered while obtaining a projection and what is an orthographic projection?
- The elements considered for a projection are front view, side view and plan view.
 - An orthographic projection is a means of representing three dimensional objects with two dimensional drawings.
8. When is a projection of an object called an orthographic projection?
- This is when the figure is drawn in first or third angle elevation.
9. Explain the following, indicating the symbol to be used in each case: (a) First angle projection, (b) Third angle projection.
- a. First angle projection is a method of creating a 2D drawing of a 3D object and it shows what a part looks like from each direction (top, left, right, bottom).
 - b. Third angle projection is a method of orthographic projection which is a technique in portraying a 3D design using a series of 2D view.

OBJECTIVES

1. A) Reference plane
2. B) False
3. C) Directly
4. B) 120
5. A) 60
6. B) Rivet
7. C) Crowning
8. B) 45
9. A) A circle
10. A) An ellipse
11. C) Cylinder
12. A) Cone
13. C) Pivot bearing
14. C) 55
15. D) Horizontal plane.

