

NAME: LONGJOHN
BOMAFINTAMUNOPIRI ADANGO

MATRIC NO: 19/ ENG01/020 (DE)

DEPARTMENT: CHEMICAL

COURSE CODE: ENG 232

DETAILS: ASSIGNMENT

ENG 232 QUESTIONS

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

Ans: Using 45-degree angle lines uniformly spaced.

2. List out the various principles to be followed while dimensioning a drawing.

- ✓ Dimension should not be duplicated, nor should the same info be given in two different ways.
- ✓ Dimension should be attached to the view that best shows the contour of the feature being dimensioned.
- ✓ Avoid dimensioning hidden lines.
- ✓ Avoid dimensioning over and through the object.
- ✓ Wherever possible locate dimensions in adjacent views.
- ✓ In general, a circle is measured by its diameter circle with line through it while an arc is measured arc by its radius.
- ✓ Holes are located by their centerlines, which may be extended and used as an extension line.

3. Explain the terms, (a) half section, (b) Full section

- ✓ **Half section** is the view that is shown if an imaginary cutting plane passes through half of the object exposing the interior of one **half** of an object while retaining the exterior of the other **half**.
- ✓ A **Full section** is the view that is shown if an 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?

Ans: Leader lines must be radial and inclined at an angle of 30-60 degrees to the horizontal with an arrowhead touching the feature and with short shoulder(3 to 6 mm) at the center of vertical height of the text.

5. What do you understand by

(a) scale = 5:1 This is an enlargement scale. It means that 5mm on the drawing paper represents 1 mm in actual size.

(b) scale = 1:10 This is a reduction scale. It means that 1mm in actual drawing represents 10mm in actual size.

6. Give the shape identification symbols for the following:

(a) diameter Ans: \varnothing

(b) radius Ans: R

(c) square Ans: 

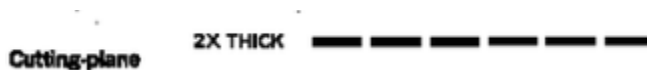
(d) spherical radius. Ans: SR

(e) Centre line Ans:

Long dash dotted Thin



(f) cutting plane line Ans



(g) long break Ans:



7. What are the elements to be considered while obtaining a projection and what is an orthographic projection?

Ans: The elements to be considered are the Line of Sight (LOS) and the Plane of projection
WHILE

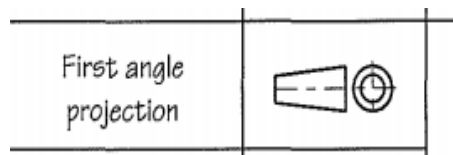
An orthographic projection is a projection of a single view of an object (such as a view of the front) onto a drawing surface in which the lines of projection are perpendicular to the drawing surface. It is a type of 'parallel' projection in which the four orthogonal views of an object are shown.

8. When is a projection of an object called an orthographic projection?

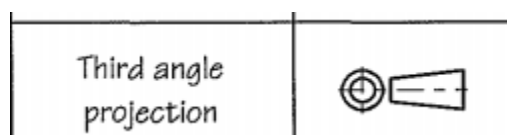
Ans: When the object is viewed along parallel lines of projection and are perpendicular to the drawing surface.

9. Explain the following, indicating the symbol to be used in each case:

(a) First angle projection: In this projection method, the object is placed in the first quadrant and is positioned in front of the vertical plane and above the horizontal plane.



(b) Third angle projection: In third angle projection, the 3D object to be projected is placed in the third quadrant and is positioned behind the vertical plane and below the horizontal plane.



Objectives

1. To project the auxiliary view, an imaginary plane known as
 - a) Reference Plane
 - b) Principle plane
 - c) Normal plane
 - d) Inclined plane *A is the correct option*

2. Reference plane is parallel to the direction of view
 - a) True b) False *B is the correct option*

3. Dimension of one side of the inclined surface can be.....projected on the reference plane
 - a) Indirectly b) Equally c) Directly d) Normally *C is the correct option*

4. In isometric projection the three edges of an object are inclined to each other at
 - (a) 60° (b) 120° (c) 100° (d) 90° *B is the correct option*

5. The angle between the flanks of a metric thread is
 - (a) 60° (b) 90° (c) 75° (d) 55° *A is the correct option*

6. Which one among the following represents a permanent fastener
 - a) Nut b) Rivet c) Screw d) Bolt *B is the correct option*

7. The convexity provided on the rim of the solid web cast iron pulley is called
 - a) Bending b) Curving c) Crowning d) Riveting *C is the correct option*

8. Section lines are generally inclined with the base, at an angle of

- a) 30° b) 45° c) 60° d) 90° *B is the correct option*

9. The isometric view of a sphere is always

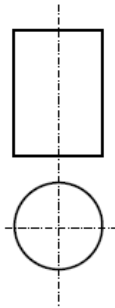
- a) a circle b) an ellipse c) a Parabola d) a Semicircle *A is the correct option*

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

- a) an ellipse b) a square c) a triangle d) a rectangle *A is the correct option*

11

(i) With respect to the elevation and plan given below, name the solid

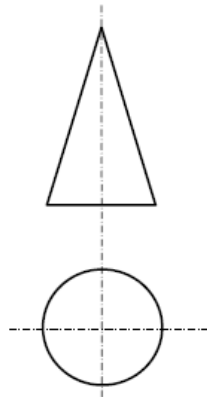


- (a) Cone
(b) hexagonal prism
(c) cylinder
(d) hexagonal pyramid

C is the correct option

12

(v) With respect to the front view and top view given below, name the solid



- (a) Cone
- (b) Cylinder
- (c) Cube
- (d) Frustum

A is the correct option

13. A footstep bearing is a

- a) journal bearing b) thrust bearing c) pivot bearing d) pedestal bearing *C is the correct option*

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

- a) 60° b) 65° c) 55° d) 75° *C is the correct option*

15. Top view is projected on the

- a) Vertical Plane b) Corner Plane c) Side Plane d) Horizontal Plane *D is the correct option*