

SECTION \_\_\_\_\_

LABORATORY  
EXAMINATION

NAME \_\_\_\_\_

TRUE-FALSE

- T   1. When cutting planes are shown on a sectional drawing, the cutting plane takes preference over the center line.
- T   2. An inclined surface will be inclined to two principal planes and perpendicular to the third.
- T   3. The pitch of the screw thread is the distance from a point (crest) on a screw thread to a corresponding point on the next thread measured parallel to the axis.
- F   4. Hidden lines are always omitted in sectional views.
- F   5. A sectional view with one fourth the object removed is referred to as a quarter section.
- T   6. A line that is perpendicular to the profile plane will appear in true length in top and front view.
- T   7. Inclined surfaces are shown in true size and shape in primary auxiliary.
- F   8. Oblique surfaces will appear in true size and shape in the primary auxiliary view.
- F   9. The root of a thread can be determined by the intersection of the side angles of the thread.
- T   10. In a multiview drawing, the front and top views are always in line vertically.

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- F   11. The diameter of a circle should always be shown and not the radius.
- T   12. Engineering drawing is a sign language.
- F   13. Webs and ribs are usually shown in full section and they are crosshatch.
- T   14. Notes are used to give information that is not part of normal dimensioning techniques.
- T   15. The length of a bolt is the distance from the under side of the head to the tip end of the bolt.

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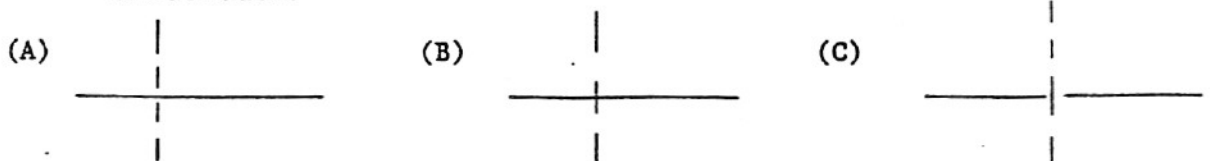
15. The length of a bolt is the distance from the under side of the head to the tip end of the bolt

- T 16. A finish mark on a drawing is indicated by a V or lazy "f".
- T 17. An auxiliary view is an orthographic view with the line of sight not perpendicular to the regular planes of projection.
- T 18. An auxiliary view helps to describe the incline surface.
- F 19. The auxiliary view must appear under size to be dimensioned properly.
- F 20. In making an auxiliary view the auxiliary plane is drawn inclined to the surface to be drawn.
- T 21. A section view is drawn as if the part of the object is cut away, leaving the interior exposed.
- F 22. A special line is used to indicate where the part is to be separated, this line is called a separator. *Cutting plane*
- T 23. Crosshatch lines are usually spaced by the eye.
- F 24. A quarter section cuts the object fully through.
- T 25. In oblique projection none of the principal faces of an object are parallel to the plane of projections.

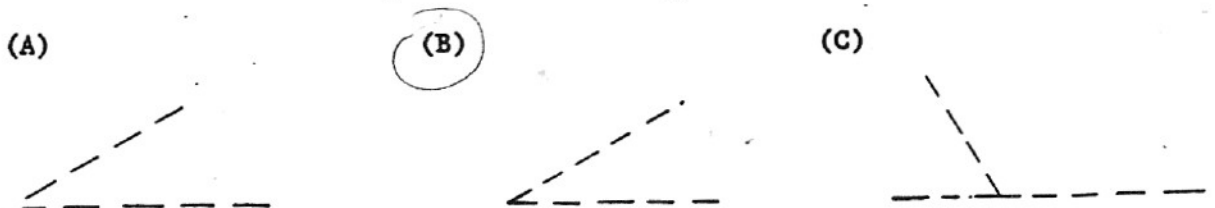
Multiple Choice: Circle the letter of your choice on the left side of the sheet.

- A B C D 1. A surface that is parallel to a horizontal plane of projection will project in the front view (A) as an edge (B) as a point (C) in true size and shape (D) foreshortened.
- A B 2. If a hidden line and an object line coincide on a drawing, (A) the hidden line (B) the object line, will take precedence.
- A B C 3. When three views of an object are given, an inclined surface will show an (A) an edge in two and surface in one (B) a surface in two views and an edge in one (C) a surface in all three views.
- A B C 4. The right side view always shows 2 dimensions: the (A) height and width (B) width and depth (C) depth and height.
- A B C 5. Projection lines creating the top view must be perpendicular to the (A) horizontal plane of projection, (B) vertical plane of projection, (C) profile plane of projection.
- A B C 6. A line that is perpendicular to the profile plane of projection projects as a (A) point (B) foreshortened line (C) true length line, in the front view.
- A B C 7. A hole that projects as a rectangle in the top view, a circle in the front view, projects as (A) a circle (B) an ellipse (C) a rectangle in the profile view.
- A B C 8. A surface that appears as a surface in all orthographic views will show as (A) an oblique (B) a normal (C) an inclined surface.
- A B C 9. A line that projects foreshortened in the front view is (A) parallel (B) perpendicular (C) inclined to the frontal plane.
- A B 10. If a hidden line and a center line coincide the (A) hidden line (B) the center line, will take precedence.

- A B C 11. The intersection of an object line and hidden line should intersect as in illustration.



- A B C 12. Hidden line correctly make an acute angle as shown in illustration



13. A half section is denoted when (A) the cutting plane removes half of the object (B) the cutting plane removes one fourth of the object.

(C) D E 14. An oblique surface projects true size and shape in (A) primary auxiliary view (B) top view (C) front view (D) secondary auxiliary view (E) right side view.

(A) B C 15. If a surface is perpendicular to a plane of projection, its projection on the plane is (A) an edge (B) foreshortened (C) true shape.

(A) B C



PLACE THE CORRECT LETTER IN THE SPACE PROVIDED TO THE LEFT OF THE QUESTION.

- C 1. When an angle or line is divided into two equal parts it has been bisected.
- F 2. An object that is similar to an egg shape is called an ellipse.
- I 3. A tangent point is the exact point at which one of two joining lines stops and the other starts. (a round joining line)
- G 4. When referring to the overall size of an object, the terms height, width and depth are used.
- D 5. Most objects require three views for complete shape description.
- B 6. In a drawing that requires many views, usually the top, front and right views are presented.
- A 7. The front view of a many view drawing is the most important view.
- J 8. Hidden lines are used to show details that are behind some part of the object.
- H 9. A rounded interior corner on a drawing of an object is called a fillet or rounds.
- E 10. A knurl is a uniformly roughened surface. Used on handles and knobs to provide a better grip.

A. front  
B. right side  
C. bisected  
D. three  
E. knurl

F. ellipse  
G. height  
H. fillet or rounds  
I. tangent  
J. hidden