

1

Mechanical Engineering Drawing

Choose the correct alternative:

- 1.** In isometric projection, two of the axes are
 - (a) 15 degrees with the horizontal
 - (b) 30 degrees with the horizontal
 - (c) 60 degrees with the horizontal
 - (d) 120 degrees with the horizontal
- 2.** The device most often used in measuring cross-sectional areas shown on an engineering drawing is a
 - (a) Pantograph
 - (b) French curve
 - (c) Geodimeter
 - (d) Planimeter
- 3.** For a sphere
 - (a) any section will be an ellipse
 - (b) auxiliary views are necessary to fully describe the figure.
 - (c) a bottom view will be necessary to adequately represent the object.
 - (d) all views of the object are similar
- 4.** The system of presenting views of an object generally used in engineering drafting is
 - (a) Trimetric projection
 - (b) Oblique projection
 - (c) Isometric projection
 - (d) Orthographic projection
- 5.** Of the following items, the one that is least likely to be found in the title block of an engineering drawing is the
 - (a) number of hours required to make the drawing
 - (b) name of the designer
 - (c) scale of the drawing
 - (d) date of completion of the drawing.
- 6.** On a drawing of an object, the heaviest lines would usually be
 - (a) invisible lines
 - (b) main dimension lines

- (c) the outline (d) the centrelines
7. If the front and top views of a solid object are circles of the same diameter, then the object would be a
(a) Torus (b) Ellipsoid
(c) Parallelopiped (d) Sphere
8. A pictorial drawing, two of the axes of which are 30 degrees with the horizontal, is known as
(a) a diametric drawing (b) an isometric drawing
(c) a perspective drawing (d) an oblique drawing
9. In the part drawing of a component, the symbol ∇ refers to the
(a) class of fit
(b) finish on that surface
(c) type of knurl to be machined on that surface
(d) class of steel to be used for the component.
10. A detailed drawing of component from which the component is fabricated is known as a
(a) perspective drawing (b) contour drawing
(c) trilinear drawing (d) shop drawing
11. The name of the instrument used to find the areas of irregular shapes is
(a) Planimeter (b) Micrometer
(c) Perthometer (d) Vernier caliper
(e) Indicator
12. An instrument consisting of four jointed pins forming a parallelogram used for copying drawings or maps to any desired scale is called a
(a) Proportional divider (b) Beam compass
(c) Planimeter (d) Pantograph
13. On a drawing showing front, rear and side elevations and plan, the projected views are most likely to be
(a) isogonic (b) orthographic
(c) isographic (d) isometric
14. Of the following, the most important reason for checking an engineering drawing is to
(a) check accuracy of the scaling
(b) eliminate unnecessary sections
(c) rectify the errors or mistakes
(d) check for the time taken to complete the drawing
15. An approved method of obtaining the area of an irregular figure is by means of a
(a) Slide caliper (b) Micrometer

- (c) Planimeter (d) Pantograph
- 16.** On the part drawings of components which require machining, symbol ∇ denotes
- (a) type of steel to be used for the component
 - (b) finish required on that surface
 - (c) class of fit
 - (d) tolerance value on the dimension
 - (e) welding is to be done
- 17.** On a production drawing, the details of a Metric thread are specified as : M20 \times 1.0. In this 1.0 represents
- (a) the depth of the thread in mm
 - (b) the pitch of the thread in mm
 - (c) the diameter of the wire (in mm) used to measure the thread characteristics
 - (d) the diameter of the thread, in mm
- 18.** Surface roughness on a drawing is represented by
- (a) Triangle (b) Rectangle
 - (c) Square (d) Parallelogram
- 19.** RMS value stands for
- (a) Root minimum square value
 - (b) Root mean square value
 - (c) Root maximum square value
- 20.** CLA value is used to represent
- (a) Surface dimensions (b) Surface hardness
 - (c) Surface roughness.
- 21.** How many roughness grade numbers have BIS (Bureau of Indian Standard) specified?
- (a) 4 (b) 8
 - (c) 12 (d) 16

1. Answer Key

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|---------|---------|---------|---------|---------|
| 1. (b) | 2. (d) | 3. (d) | 4. (d) | 5. (a) |
| 6. (c) | 7. (d) | 8. (b) | 9. (b) | 10. (d) |
| 11. (a) | 12. (d) | 13. (b) | 14. (c) | 15. (c) |
| 16. (b) | 17. (b) | 18. (a) | 19. (b) | 20. (c) |
| 21. (c) | | | | |