ENGINEERING DRAWING QUESTIONS

1. What is the primary purpose of a drawing board in engineering drawing?

A) To measure angles
B) To provide a stable surface for drawing
C) To scale the drawing
D) To erase mistakes

2. Which of the following instruments is specifically designed for drawing horizontal lines?

A) Set Square
B) T-Square
C) Compass
D) Protractor

3. Which tool is used to draw precise angles of 30°, 45°, and 60° in engineering drawing?

A) Protractor
B) Compass
C) Set Square
D) Templates

4. What is the function of a compass in technical drawing?

A) To draw straight lines
B) To measure and draw angles
C) To draw arcs and circles
D) To erase mistakes

5. Which instrument is used to measure and draw angles accurately in engineering drawing?

A) T-Square
B) Scale
C) Protractor
D) Set Square

6. What is the main purpose of a scale in engineering drawing?

A) To measure angles
B) To correct mistakes
C) To scale the drawing accurately
D) To draw arcs and circles

7. Which of the following is used to correct mistakes in a technical drawing?

A) T-Square
B) Erasers and correction fluid
C) Templates
D) Compass

8. What is the function of templates in engineering drawing?

A) To draw straight lines
B) To measure and draw angles
C) To help draw consistent shapes like circles and ellipses
D) To scale the drawing

9. Which type of pencils are used in engineering drawings for different line weights and details?

A) Drafting Pencils
B) Graphite Pencils
C) Colored Pencils
D) Mechanical Pencils

10. What material is commonly used for a drawing board to ensure stability in engineering drawing?

A) Metal
B) Cardboard
C) Wood or a rigid material
D) Plastic

11. What is the primary use of freehand sketching in engineering design?

A) To create precise technical drawings
B) To visualize designs and brainstorm initial ideas

C) To replace formal technical drawings
D) To measure angles

12. Which of the following is a major benefit of freehand sketching?

A) It requires precise instruments for accuracy
B) It is a flexible, fast way to capture ideas without needing precise instruments
C) It is used only for final drawings
D) It limits creativity

13. What is the primary function of lettering in engineering drawings?

A) To measure angles
B) To label drawings, dimensions, and notes clearly
C) To provide aesthetic details
D) To create accurate shapes

14. Which of the following is an important technique for effective lettering in engineering drawings?

A) Using varying sizes and styles of fonts
B) Consistent height and style, such as uppercase letters in sans-serif fonts
C) Writing in cursive for clarity
D) Using a different font for each section of the drawing

15. What is the purpose of dimensioning in technical drawings?

A) To add artistic details
B) To provide accurate measurements for the size and location of features
C) To create perspective views
D) To make the drawing look more professional

16. Which of the following standards are typically followed in dimensioning to ensure uniformity and clarity?

A) ISO or ANSI standards
B) Aesthetic guidelines

C) Freehand drawing techniques
D) CAD software standards

17. Why is consistent lettering important in engineering documentation?

A) It makes the drawing more colorful
B) It ensures clarity and professionalism in the documentation
C) It adds personal style to the drawings
D) It helps reduce the size of the drawing

18. In engineering, which of the following best describes the role of dimensioning in fabrication and assembly?

A) It serves no real purpose
B) It is essential for ensuring the correct size and positioning of features during production
C) It only adds visual appeal to the drawing
D) It is used for aesthetic purposes only

19. Which of the following is NOT a benefit of freehand sketching in the early stages of design?

A) It helps visualize ideas quickly
B) It allows for rapid iteration of concepts
C) It creates precise, final drawings
D) It promotes creativity and flexibility in design

20. Which of the following would be most appropriate for clear, readable dimensioning on an engineering drawing?

A) Using small text and random styles
B) Following a standardized system such as ISO or ANSI
C) Using multiple different fonts and font sizes
D) Writing dimension numbers in different colors

21. What is the main purpose of the layout in engineering drawing?

A) To add artistic details to the drawing
B) To arrange views, dimensions, and notes for

clarity and understanding
C) To make the drawing visually appealing
D) To scale the drawing

22. Where is the title block typically located on an engineering drawing?

A) Top left corner
B) Top center
C) Right bottom corner
D) Center of the drawing sheet

23. Which of the following information is included in a title block?

A) Only the drawing title
B) Only the scale of the drawing
C) Drawing title, designer's name, scale, date, sheet number, and other relevant information
D) Only the designer's name and sheet number

24. What does chain dimensioning in engineering drawings involve?

A) Placing dimensions parallel to each other
B) Measuring from one feature to another in a sequential manner, all with the same datum
C) Using a coordinate system to define positions
D) Placing multiple dimensions in different directions

25. Which of the following is a characteristic of parallel dimensioning?

A) All dimensions are placed in a single line
B) Multiple dimensions are placed parallel to each other with a common baseline
C) Dimensions are placed at random positions on the drawing
D) It is used to measure the angle of a feature

26. What is combined dimensioning in engineering drawings?

A) Only chain dimensioning is used
B) It is a mix of both chain and parallel

dimensioning methods
C) Dimensions are placed at random locations
D) Dimensions are not needed in combined dimensioning

27. In superimposed running dimensioning, where should the origin be indicated?

A) At the top of the drawing
B) At the left side of the drawing
C) Appropriately, with one end of the dimension line terminated at the origin
D) At the center of the drawing

8. Which dimensioning method uses a coordinate system to define the position of points relative to a datum?

A) Chain dimensioning
B) Parallel dimensioning
C) Superimposed running dimensioning
D) Co-ordinate dimensioning

29. Which of the following statements is true regarding the title block in an engineering drawing?

A) It contains only the sheet number
B) It is located at the center of the drawing sheet
C) It includes essential details like the drawing title, designer's name, and scale
D) It is used only for aesthetic purposes

30. Which of the following is a key feature of a well-organized layout in an engineering drawing?

A) It enhances the clarity and facilitates understanding of the drawing
B) It uses only a few dimensions
C) It is used to decorate the drawing
D) It places all views and dimensions in random positions

31. What is the main purpose of coordinate dimensioning in engineering drawing?

A) To define the shape of the object
B) To determine the position of points relative to a datum using a coordinate system
C) To measure the angles of the drawing
D) To create a perspective view of the object

32. In coordinate dimensioning, what does the coordinate system use to define positions of points?

A) A series of random measurements
B) The X and Y axes relative to a datum
C) A time-based reference system
D) The size of the object being drawn

33. Which quadrant contains both X and Y values as positive in the coordinate plane?

A) First Quadrant
B) Second Quadrant
C) Third Quadrant
D) Fourth Quadrant

34. Which quadrant has a negative X value and a positive Y value?

A) First Quadrant
B) Second Quadrant
C) Third Quadrant
D) Fourth Quadrant

35. In which quadrant are both the X and Y values negative?

A) First Quadrant
B) Second Quadrant
C) Third Quadrant
D) Fourth Quadrant

36. In which quadrant are X values positive, and Y values negative?

A) First Quadrant
B) Second Quadrant
C) Third Quadrant
D) Fourth Quadrant

37. In First Angle Projection, how are the views projected onto the planes relative to the viewer?

A) Views are projected onto the planes adjacent to the viewer.
B) Views are projected onto the planes opposite to the viewer.
C) Views are shown in reverse order.
D) Views are not projected in First Angle Projection.

38. Where is the object placed in First Angle Projection?

A) In the second quadrant
B) In the third quadrant
C) In the first quadrant
D) In the fourth quadrant

39. In Third Angle Projection, how are the views projected onto the planes relative to the viewer?

A) Views are projected onto the planes opposite to the viewer.
B) Views are projected onto the planes adjacent to the viewer.
C) Views are shown in random order.
D) Views are not projected in Third Angle Projection.

40. Which projection method is commonly used in the United States and other regions?

A) First Angle Projection
B) Third Angle Projection
C) Both First and Third Angle Projection
D) Neither First nor Third Angle Projection

41. What is the primary purpose of a shop floor drawing in manufacturing?

A) To provide artistic representation of the product
B) To guide the fabrication and assembly processes

with detailed specifications, dimensions, materials, and instructions
C) To give a general idea of the product's design
D) To be used as a marketing tool for the product

42. Which of the following is typically included in a shop floor drawing?

A) Only the product's dimensions
B) Specifications, dimensions, materials, and assembly instructions
C) Just the product's visual appearance
D) Only material specifications

43. Why is accuracy important in a shop floor drawing?

A) It helps improve the visual appeal of the drawing
B) It ensures that machinists and operators can fabricate and assemble the product correctly and consistently

C) It makes the drawing easier to read
D) It allows for easier presentation during meetings

44. How does a shop floor drawing help in communication with shop floor personnel?

A) It helps them understand the artistic vision behind the product
B) It provides clear technical information that guides the production process
C) It offers personal notes from the designer
D) It allows for informal communication between designers and operators

45. In addition to guiding fabrication and assembly, what is another important role of a shop floor drawing?

A) It serves as a reference for quality control and inspection
B) It serves as a decorative piece on the shop floor

C) It is used to market the product to customers
D) It helps in designing promotional materials

46. Which of the following best describes a shop floor drawing?

A) A drawing that is used for aesthetic purposes only
B) A detailed technical drawing with production specifications
C) A rough sketch to outline design concepts
D) A marketing brochure for a product

47. Who benefits from the use of shop floor drawings in the manufacturing process?

A) Only the designers
B) Only the engineers
C) Machinists, operators, and quality control inspectors
D) Only the marketing team

48. Why is consistency important in shop floor drawings?

A) It ensures that every drawing looks the same, regardless of the product
B) It helps in creating a uniform appearance across all manufacturing drawings
C) It helps to prevent errors in fabrication and assembly
D) It makes the drawings easier to store and archive

49. Which aspect of manufacturing does a shop floor drawing NOT directly assist with?

A) Fabrication
B) Assembly
C) Marketing
D) Quality control and inspection

50. What is a key reason for including detailed specifications and assembly instructions in a shop floor drawing?

A) To make the drawing look more complex
B) To ensure machinists and operators understand how to properly fabricate and assemble the product
C) To increase the visual appeal of the drawing
D) To make the drawing easier to store