EPITOME MODEL ISLAMIC SCHOOLS

TECHNICAL DRAWING INTERVIEW QUESTIONS

Instruction: Attempt all questions from this section

Time Allowed for this section: 20 minutes

SECTION A: MCQ

1. The primary purpose of a T-square in technical drawing is to: A) Draw circles and arcs B) Ensure horizontal lines and right angles C) Measure distances accurately D) Sharpen pencils
2. In standard drafting, the line weight for visible outlines is typically: A) 0.1 mm (thin) B) 0.3-0.5 mm (medium) C) 0.7 mm (thick) D) 1.0 mm (extra thick)
3. The French curve is used for drawing: A) Straight lines B) Irregular curves and ellipses C) Parallel lines D) Perpendicular bisectors
4. Scale 1:50 means the drawing is: A) 50 times larger than the object B) Half the size of the object C) 1/50th the size of the object D) Twice the size of the object
5. The standard sheet size for A3 paper in ISO standards is: A) 210 mm × 297 mm B) 297 mm × 420 mm C) 420 mm × 594 mm D) 841 mm × 1189 mm
6. To bisect an angle using a compass and straightedge, the first step is to: A) Draw arcs from the vertex to intersect the sides B) Construct perpendicular lines C) Find the midpoint of the angle sides D) Draw a circle centered at the vertex
7. The construction of a regular hexagon inscribed in a circle requires: A) Dividing the circle into 6 equal arcs using a compass B) Drawing tangents at 60° intervals C) Using a protractor for 120° angles D) Bisecting radii at 90°
8. In geometric construction, a parallelogram can be constructed by: A) Drawing two pairs of parallel lines with equal opposite sides B) Constructing a rectangle and skewing it C) Using only perpendicular bisectors D) Inscribing it in a circle
9. The locus of points equidistant from two intersecting lines is: A) The angle bisector B) A perpendicular line C) A circle's center D) An ellipse
10. To construct a tangent to a circle from an external point, you: A) Draw a radius to the point of tangency perpendicular to the tangent B) Use equal chords from the external point C) Bisect the line from center to external point D) Draw concentric circles
11. In first-angle projection, the front view is projected onto: A) The plane behind the object B) The plane in front of the object C) The horizontal plane above D) The profile plane to the side
12. The three principal views in multiview orthographic projection are: A) Front, top, and right side B) Front, bottom, and left side C) Isometric, oblique, and perspective D) Plan, elevation, and section
13. Hidden lines in orthographic views are represented by: A) Solid thick lines B) Dashed thin lines C) Center lines D) Phantom lines
14. For an object with a hole, the orthographic view will show the hole as: A) A circle in the view perpendicular to the axis B) An ellipse in all views C) A rectangle in the front view D) Only in isometric projection
15. The convention for a right-hand thread in sectional views is: A) Cross-hatching at 45° sloping upward to the right B) No hatching for threads C) Solid shading D) Dashed lines
16. In third-angle projection (used in the US), the top view is placed: A) Below the front view B) Above the front view C) To the left of the front view D) Behind the front view

17. The purpose of an auxiliary view is to show: A) True shape of an inclined surface B) Exploded assemblies C) Isometric details D) Thread profiles
18. Center lines in orthographic drawings are drawn as: A) Thin, alternating long and short dashes B) Thick continuous lines C) Dotted lines D) Wavy lines
19. For a symmetrical object like a cylinder, the number of unique orthographic views needed is typically: A) One (front view suffices) B) Two (front and side) C) Three (all principal) D) Six (all around)
20. The projection of a circle in an orthographic view parallel to its plane appears as: A) A circle B) An ellipse C) A line D) A parabola
21. In isometric projection, all three axes are drawn at: A) 30° to the horizontal B) 45° to the horizontal C) 90° to each other D) 120° to each other
22. Oblique projection differs from isometric in that: A) Only one face is true size, others foreshortened B) All faces are equally foreshortened C) It uses two vanishing points D) It requires perspective lines
23. In cavalier oblique projection, the receding lines are drawn at: A) Full scale, 45° angle B) Half scale, 30° angle C) Full scale, 30° angle D) Half scale, 45° angle
24. The isometric circle for a hole on the top face is drawn using: A) A 30-60° ellipse template B) A true circle C) A square with diagonals D) An arc of 90°
25. Pictorial drawings are used primarily for: A) Detailed manufacturing B) Visualization and presentation C) Precise measurements D) Geometric proofs
26. In a full section view, the cutting plane passes: A) Through the entire object B) Only through a portion C) Along an axis without cutting D) Perpendicular to the view
27. Hatching lines in sectional views are spaced at: A) 45° to the line of the cut, 3-4 mm apart B) 90° to the cut, 1 mm apart C) Parallel to the cut D) Random angles
28. A removed section shows the section: A) Offset to the side of the view B) In its actual position C) As a half-section D) In isometric form
29. Auxiliary views eliminate the distortion of: A) Inclined and oblique surfaces B) Cylindrical features C) Hidden details D) Threads
30. In half-section views, the uncut portion is separated by: A) A center line B) A visible outline C) Hatching D) A break line
31. Linear dimensions are placed: A) On the arrowheads, outside the line B) Above the dimension line C) Below the dimension line D) Inside the object outline
32. The tolerance for a dimension 50 ± 0.05 mm indicates: A) Upper limit 50.05, lower 49.95 B) Unilateral tolerance C) Bilateral tolerance D) No tolerance needed
33. Angular dimensions are measured from: A) A datum line or surface B) The horizontal axis only C) Clockwise always D) Random reference
34. GD&T (Geometric Dimensioning and Tolerancing) uses symbols for: A) Form, orientation, location, and runout B) Only size tolerances C) Material properties D) Assembly instructions
35. The ASME Y14.5 standard governs: A) Dimensioning and tolerancing practices B) Projection methods only C) Paper sizes D) Line types
36. In AutoCAD, the command to draw a circle is: A) CIRCLE B) ARC C) LINE D) RECTANGLE
37. Parametric modeling in CAD allows: A) Changes to dimensions that automatically update the model B) Freehand sketching C) 2D raster images D) Manual scaling

38. The file extension for a 3D CAD model in SolidWorks is typically: A) .SLDPRT B) .DWG C) .PDF D) .STL (for printing)
39. Boolean operations in 3D modeling include: A) Union, subtract, intersect B) Only rotation C) Scaling only D) 2D extrusion
40. Revolved sections in CAD are created by: A) Rotating a 2D profile around an axis B) Extruding linearly C) Sweeping along a path D) Lofting between profiles