Engineering graphics viva questions and answers

The answers are brief. S has 19-24 automatic cad questions. Q1. What is a projection, projector and projection plane? Ans. The projection is an image or a view. Projectors are lines drawn from all points of the object. These lines are upright to the projection plane and parallel to each other. The projection plane (POP) is the plane on which the image is drawn. Q2. Explain the replacement plane with a sketch. Cvp. Reference planes (HP&VP) are drawn with real images in the shape and size of the plane and details that are not at the correct angle. S3. Classiation the projection by creating a chart. Ans. Q4. Distinguish between the first and third angle projection. Ans. i.) The object is placed on the first and third dials in the first and third angle projections, respectively. ii.) The object is between pop and observer in the first angle projection, and pop in the third angle projection is between the object and the observer. iii.) The plan (Top View) is under Height (Front View). RSV height left and LSV height on the right. S5. What are row types? Ans. Object Line Continuous (FIRM) Thick Line Construction Line Continuous (FIRM) Fine Line Dashed Thick Line Line Line Line (Incubation) Thin and light 45 Cutting Line (Short) Cutting Line (Long) Cutting Plane Line Size Line & Notations Ø Extension Line Ø Dimension Line Ø Arrow tips Ø Numbers Ø Leading Ø Notes Q6. What is sizing? Mention his notations. Ans. Sizing neither from where is Q7. What are reference, coordinate and section cutting planees? Ans. Horizontal Plane (HP) and Vertical Plane (VP) reference planees. Profile Plane (PP) is a coordinate plane. A break plane is an imaginary plane used to display and show cross-sectioned details (the cut part) of an object. Q8. What is biometric projection? Distinguish in oblique view. Cvp. When all faces of an object are equally prone to POP. Dimetric Projection is called when 2/4 faces in a cube instance are equally prone to POP. Trimetric Projection is called when not all faces are evenly inclined. Tilted View projection, the observer's front is parallel to a face POP, but other faces are usually POP inclined at an angle of 45 (i.e. between 30 and 60). S9. Why is the 30° angle used in isometric projection? Cvp. Can be explained by a sketch. Q10. Explain the isometric scale and type the isometric view of a circle and sphere. Ans. Isometric scale is used to draw isometric projection/view. To draw the application as described. An ellipse is an autometric projection of a circle and a sphere. Q11. What is the difference between orthographic and picture views? Ans. Orthographic projection is typically used because it gives 100% details of an object by drawing different views such as height, plan, side views, section views. This is 2-D, and the picture views are 3-D, and don't give full information. yes, it could be a projection. easily by a non-professional, but orthographic projection can only be understood by an engineer or contact person. S12. What is a perspective view and where is it preferably used? Ans. Perspective view is a picture projection and is used by the engineering architecture branch. S13. Why is orthographic projection often used to express engineering details? Cvp. Gives 100% details of an object by drawing a large number of views, it is very necessary. S14. Why is it necessary to use isometric scale for isometric projection drawing? Explain the drawing with Ans. It will be explained in the classroom with a sketch... S15. Under what conditions the hidden lines will be drawn an ionmetric projection. Cvp. Usually hidden lines are drawn in isometric projection to show blind details (blind holes, etc.) Q16. How do isometric drawing and isometric appearance differ in projection? Ans. Isometric views are always drawn with isometric scale, while isometric sketches can be drawn on a normal scale. S17. For which type of object, slashed view is preferred over isometric view. Ans. If circular, irregular and curved details are more in the object, oblique appearance is preferred instead of isometric appearance. S18. What are the factors to keep in mind to get the perfect direction of an object? Cvp. An object must be held so that the maximum details are visible to the observer in front and have the least dotted lines in the views. S19. What do you mean, Auto Cad? Give the definition and use. Ans. CAD-Computer Aided Draft. Create 2D/3D drawing with the use of computer software (Auto Cad) instead of manual drawing. Any changes/edits to the drawing can be done easily and quickly with the use of this software. Q20. What are coordinate systems? It explains the name types of coordinate systems and with a polygon instance for each system. Ans. Coordinate systems are basically three-axis X, Y & Z. Any object drawn must be prepared by these axes, which give dimensions such as length, width and thickness/height, respectively. There are three types of coordinate system i.) Absolute ii.) Relative Rectangle iii.) Relative Pole. Q21. If the axes are 180x70, explain how an elip can be drawn in different ways. Ans. 1.Axis Endpoint Method- i) full(180), ii) half(35) 2nd Center Method – both dimensions put half (90.35) Q22. What are the basic object selection methods? How many types of selection windows? Cvp. Object selection i has three methods.) Selection Window ii.) Click Object iii Directly.) Ctrl+A (with key card). The Selection Window i has two types.) Normal window ii.) He's passing the window. S23. Explain Move, Copy, Fillet, and Chamfer free hand drawings ans. Move- To transfer drawings of an object from one place to another, there are no copied digits. Copy – The reference drawing remains the copied number, preparing the same drawing of more than one object. Radyus – to show the corner of an object in a spring shape by giving it a radiator Material Chamfer - giving some conical angle and conical length to show sharp corner in the form of conical. Q24. Name the 10 commands used in the orthographic projection drawing. Ans. Line, Circle, Arc, Rectangle, Polygon, Ellipse, Fillet, Chamfer, Move, Copy, Delete, Break, Break, Array, Offset, Mirror, Extend, Stretch. Stretch.