

CS602 Grand Quiz Fall 2020

1. **Pivot** is a point which makes the code simpler and all other points are taken from this point.
2. Computer graphics application can be found in almost all areas except **Multi-threading**
3. **Primitives** are the fundamental geometric entities within a given data structure.
4. Plasma-panel displays use a gas mixture and phosphorus coating for showing display.

A. True

5. In **boundary** polygon filling technique, the filling is done from interior point towards boundary.
6. In right hand rule, Z is **negative** beyond the origin, and **positive** behind it.
7. Matrix addition can be done if two matrices have the same number of **rows** and **column**
8. **Transpose** of a matrix is a new matrix whose rows are the columns of the original.
9. The angle a circle subtends from its center is equal to **360 degree**
10. In perspective projection, for correct view, **Z-axis** should pass through the middle of the screen.
11. The width of the screen can be calculated as:

B. $w = \text{aspect} \cos(\text{fov}) / \sin(\text{fov})$

12. In translation every point on the object is translated by the **same amount**.
13. **Polar Coordinates** algorithm make calculations for an octant of a circle area and draw the whole circle.
14. This projection technique has the direction of projection perpendicular to the viewing plane, and the viewing direction is perpendicular to one of the principle faces.

C. Orthographic Parallel Projection

15. The mirror image for a 2D reflection is generated by rotating the object **180 degree** about the reflection axis.
16. The ordering of vertices goes **clockwise** in a triangle.
17. In mode 3, each pixel occupies **2 bytes** bit/bits in VDU memory.
18. Translation moves objects without **deformation**

19. **Axonometric** projections are orthographic projections in which the direction of projection is not parallel to any of the three principal axes.

20. Drawing a **gouraud** triangle, we add only two parts to the flat triangle routine.

21. **Menaechmus** was first person who studied the ellipse.

22. **Circle** is the set of points that are equidistant from its origin

23. Three or more points that lie on the same line are called **collinear**

24. Monochrome adapter can display **only text**.

25. The process of moving the points so that the POV is at the origin looking down the +Y axis is called normalization.

B. False

26. Both boundary filling and flood filling algorithm are non-recursive techniques.

B. False

27. In Sutherland and Hodgman's polygon clipping algorithm, what will be saved for wholly inside visible region

B. Endpoint

28. In Raster-Scan System, electron beams draws a line from left to right and then back to left end to draw next line, this effect is known as **horizontal retrace**

29. In **Isometric** projection, the direction of projection makes equal angles with all the three principal axis.