

COMPUTER GRAPHICS 21/22 SAMPLE EXAM QUESTIONS

Question 1. Command `glColor3f(1,0,0);` sets

- a) green
- b) red
- c) blue

color.

Question 2. If you want to draw a rectangle you can use

- a) `GL_QUADS`
- b) `GL_RECTANGLE` *Doesn't exist*
- c) `GL_POLYGON`

Question 3. Command `glRotatef(2,0,1,2);` rotates

- a) by 2 degrees around vector (2, 0, 1)
- b) by 2 degrees around vector (0, 1, 2)
- c) by 2 radians around vector (2, 0, 1)

Question 4. Which is true:

- a) in raster graphics scaling doesn't change the quality of an image,
- b) in vector graphics the file stores mathematical information about an image,
- c) in raster graphics image is divided into rectangular pixels.

Question 5. Assume R represents the matrix of rotation (by nonzero angle) and T represents the matrix of translation (by nonzero vector). Then, in general,

- a) $RT = TR$,
- b) $RT \neq TR$,
- c) it is possible that for some choices of R and T , $RT = TR$. *Only when the angle is 0 or the translation vector $\vec{0}$*

Question 6. Which is true:

- a) using orthographic projection a square can become a line segment,
- b) using perspective projection a square can become a line segment,
- c) using orthographic projection object which are further after projection are smaller.

Question 7. Which is true:

- a) there are three types of light in OpenGL: ambient, diffuse and specular,
- b) ambient light has no source,
- c) specular light has its source and direction. *Doesn't have direction, depends on the viewer.*

Question 8. A cube can be represented by

- a) 12 triangles,
- b) 8 vertices,
- c) 10 edges. *12 edges*

Question 9. Z-buffer algorithm

- a) works with image precision,
- b) works with object precision,
- c) stores information about colors of faces. *only the color of the closest face to each pixel.*