

## 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`
- ☒ 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  $T$ ,  $RT = TR$ .

**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.

**Question 8.** A cube can be represented by

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

**Question 9.** Z-buffer algorithm

- a) works with image precision,
- b) works with object precision,
- c) stores information about colors of faces.