

**CROSS RIVER UNIVERSITY OF TECHNOLOGY, CALABAR**  
**DEPARTMENT OF COMPUTER SCIENCE**  
**SECOND SEMESTER EXAMINATIONS 2018/2019 SESSION**

**COURSE CODE: 4204**

**COURSE TITLE: COMPUTER GRAPHICS**

**TIME: 2HRS**

**INSTRUCTION: ANSWER ANY FOUR QUESTIONS**

- 1a. Differentiate the two types of LCD display technologies.
- b. Compare the RGB and the HSV colour models.
- 2a. Describe a way to set the pixels between two points corresponding to a straight line.
- b. Computer generated images can suffer from so-called aliasing. Give an example of this effect, and describe a method to remedy it.
- 3a. Write short note on Plasma Display Technology.
- b. Without diagram, explain the purpose of any four of the coordinate systems in the graphics pipeline.
- 4a. Explain how computer graphics is useful in the entertainment industry.
- b. The colour we perceive is a combined result of some different parts the light information passes on its way to the brain. Identify the different subparts and how they affect the perceived colour of an object.
- 5a. Describe the three basic elements used for drawing in Computer Graphics.
- b. If we want to resize a 980 x 640 image to one that is 40 pixels tall with the same aspect ratio, what would be the width of the resized image?
- 6a. Differentiate between ray-casting and ray-tracing.
- b. Explain what a z-buffer is, what its purpose is, and present a z-buffering algorithm.