

June 2012

Bachelor of Computer Application (BCA) Examination

VI Semester

Computer Graphics and Multimedia

Time : 3 Hours]

[Max. Marks : 50

Note : Attempt any two parts from each question. All questions carry equal marks.

1. (a) Explain the difference between Raster Scan and Random Scan Devices.
- (b) Explain the working principle of Cathode Ray Tube (CRT) based monitor.
- (c) Define the following terms : (any two)
 - (i) Frame Buffer
 - (ii) Pixel
 - (iii) Aspect Ratio.
2. (a) Write Bresenham's circle drawing algorithm.
- (b) Explain any two anti-aliasing techniques.
- (c) Explain any algorithm for polygon filling.
3. (a) Describe rotation and scaling transformation with suitable example.
- (b) Why clipping is necessary in Computer Graphics ? Write Cohen Sutherland line clipping algorithm.
- (c) Explain any two character (font) generation techniques.
4. (a) What is Window-viewport transformation ? Derive expressions for Window-viewport transformation.
- (b) What is an Image ?
- (c) Mention any five image file format. Explain. How Laser Printer works ?
5. (a) Briefly describe about the morphing.
- (b) Explain basic principles of animation.
- (c) Write short notes on : (any two)
 - (i) Video File Format
 - (ii) Scanner Output Device
 - (iii) Data Compression
 - (iv) Color Models
 - (v) MIDI.

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