July 2013
Bachelor of Computer Application (BCA) Examination
VI Semester

Computer Graphics and Multimedia

Time : 3 Hours]   [Max. Marks : 50

Note : *Attempt any Five questions. All questions carry equal marks.*

1. (a) Explain working of Colour Cathode Ray Tubes (CRT).

    (b) Explain the difference between raster-scan and random-scan display devices.

    (c) Explain the working principle of Direct View Storage Tube (DVST). List the advantages and disadvantages of DVST.

2. (a) Explain Bresenham's line drawing algorithm. Why is this algorithm preferable to DDA (Digital Differential Analyzer) algorithm?

    (b) Explain the difference between scanline and flood-fill algorithms for polygon filling methods.

    (c) What is the need of homogeneous coordinates? Give the homogeneous coordinate matrix for translation, scaling and rotation.

3. (a) Explain window to viewport transformation.

    (b) Explain Cohen- Sutherland line clipping algorithm with suitable example.

    (c) What is Segment Table? Explain various data structure used to implement the segment table.

4. (a) What is Multimedia ? Explain various applications of multimedia.

    (b) Explain any two file formats of each text, sound and image file.

    (c) Describe in brief the steps required to produce real time animation.

5. (a) Explain any two broadcast video standards.

    (b) Explain video compression technique.

    (c) Explain any one hard copy device.

* * *