June - July 2008
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)   Briefly explain the working of Color Raster Refresh terminals.
      (b)   Describe various applications of Computer Graphics.

2.   (a)   Write Bresenham's line drawing algorithm for slope *m* 1.
      (b)   Write transformation matrices to rotate an object above refresh point (x_r, y_r) by 0 degree anticlockwise.

3.   (a)   Write flood fill polygon filling algorithm.
      (b)   Write matrix for translation of an point by (t_x, t_y).

4.   (a)   Define Window and Viewport. Write transformation equation to convert world coordinates to viewport coordinates.
      (b)   Briefly explain importance of 4 bit region code used in Cohen Sutherland line clipping process.

5.   (a)   Write 3D scaling matrix to scale an object about *x, y, z* axis by *sx, sy, sz* respectively about origin.
      (b)   Briefly explain JPEG image file format.

6.   (a)   Briefly explain cell animation with example. 5 (b.) Explain NTSC broadcast standard.

7.   (a)   Explain the working principle of Laser Printer.
      (b)   Explain MPEG Video standards.

8.   Write short notes on any two of the following :
      (a)   Digital Sound
      (b)   Segmentation in Graphics
      (c)   3D Modelling
      (d)   Scanner.

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