May - June 2006

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) What do you mean by DVST? Write any two advantages of using DVST.

    (b) There is a image with following details :

    Size - 2000 x 1600 pixels

    Colour - 24 bit

    Calculate the frame buffer size for 90 Hz display. If the buffer size is 256 KB, can it display the image?

2. (a) Calculate first ten points for line ((10, 2), (20, 200) using Bresenham' algorithm. Also calculate their error deviation.

    (b) Explain the technique to draw thicker line.

3. (a) Consider the triangle ABC A (4, 1), B (5, 2) and C (4, 3). Do the following transformation on above triangle and thus find the transformation matrix.

    (i) first inrease the size of triangle by double.

    (ii) then rotate the triangle by 30° clockwise with respect to the point (4, 4).

    (b) Write border filling algorithm for closed shape.

4. (a) Calculate clipped polygon co-ordinates of the triangle of Question 3 (a), if the window co-ordinates are (0, 0) to (4, 4).

    (b) How 3D images are formed using parallel projection?

5. (a) How fonts are generated? Explain the method of stroke font.

    (b) Explain any two audio file format.

6. (a) Explain the video recording format (S-VHS).

    (b) Explain any one compression technique.

7. Differentiate between any two of the following :

    (a) Television Image and Computer Image.

    (b) Bresenham's Algorithm and DDA Algorithm.

    (c) Plasma Panels and Flat CRT Screen.

8. Write short notes on any two of the following :

    (a) Audio Compression.   (b) Video Compression.

    (c) Hyper Text.   (d) Audio Editing MCI.

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