Roll No ....

IT-6003-CBGS

B.E. VI Semester

Examination, June 2020

Choice Based Grading System (CBGS)
Computer Graphics and Multimedia

Time : Three Hours

Maximum Marks : 70

Note: i)   Attempt any five questions.

     ii)   All questions carry equal marks.

1. a) State and derive all necessary formulas for decision parameters for midpoint circle drawing algorithm.

   b) Draw a line from point (2, 2) to (10, 7) using Bresenham's line drawing algorithm.

2. a) Explain different input modes with suitable diagram.

   b) Define the following:
      i) Flickering
      ii) Resolution
      iii) Interfacing

3. a) With suitable diagram, describe the architecture of a raster graphics system with a display processor.

   b) What is a Bezier curve? List all its important properties.

4. a) Explain Sutherland Hodgeman polygon clipping with example.

   b) Differentiate between:
      i) Phong Vs Gouraud shading
      ii) RGB Vs HSV color mode.

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5. a) Rotate a point A(3, 2) by 90° in anticlockwise direction with respect to some reference point B(1, 2).

   b) Prove following statements:

   i) Successive rotations are additive

   ii) Successive scaling are multiplicative

6. a) Derive transmission matrix for parallel projection onto XY plane.

   b) Explain the architecture of multimedia systems.

7. a) What are multimedia authority tools?

   b) Discuss the evolving technologies for multimedia.

8. a) Explain TIFF, MPEG, MIDI, JPEG file format standard.

   b) Write short notes:

   i) Full Motion Video

   ii) Lossless Vs Lossy compression

   iii) Storage and retrieval technologies

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