BCACAC 260

Credit Based Fourth Semester B.C.A. Degree Examination, April/May 2018
(Common to All Batches)
COMPUTER GRAPHICS AND MULTIMEDIA

Time : 3 Hours

Max. Marks : 80

Note : Answer **any ten** questions from Part – **A** and **one full**
question from **each** Unit in Part – **B**.

PART – A

(10×2=20)

1. a) Define resolution.

   b) What are horizontal and vertical retrace ?

   c) Write the 8-way symmetry of a circle.

   d) List any four line attributes.

   e) Write the matrices to represent translation and rotation in homogeneous
   coordinate system.

   f) What is clipping ? List its types.

   g) What is interactive media ?

   h) What is dithering ?

   i) What are palettes ? Mention any one common color palette.

   j) What is 3-D animation ?

   k) Mention any two analog broadcast video standards.

   l) List two drawbacks of CD-ROM technology.

PART – B

UNIT – I

2. a) Explain the architecture of raster display system with a neat diagram.

   b) Derive the mid-point algorithm to draw a circle.

   c) Derive the Bresenham's line drawing algorithm.   **(4+5+6)**

3. a) Explain the CRT monitor with neat diagram.

   b) Write Mid-Point Ellipse algorithm.

   c) Explain the Boundary fill algorithm.   **(5+6+4)**

UNIT – II

4. a) Prove that successive scaling is multiplicative.

   b) What is a Reflection ? Explain various types of reflection.

   c) Write and explain Cohen Sutherland line clipping algorithm.   **(3+5+7)**

5. a) Explain general fixed point scaling with suitable diagrams. Derive the composite matrix for the same.

   b) Write a note on Pattern fill.

   c) Explain the procedure of Sutherland Hodgeman polygon clipping along with suitable diagrams.   **(6+3+6)**

UNIT – III

6. a) Explain the applications of multimedia in various fields.

   b) Write a note on bitmaps.

   c) Explain any five editing in digital recordings.   **(5+5+5)**

7. a) What are the different methods for searching in hypermedia ?

   b) Write a note on vector drawing.

   c) Write a note on MIDI audio. (5+5+5)

UNIT – IV

8. a) Explain the principles of Animations.

   b) Give some suggestions for creating good titles for video.

   c) Write a note on image editing tools. (5+5+5)

9. a) Write a note on Cel Animation.

   b) List and explain different steps of a multimedia project.

   c) Explain various Video standards. (5+5+5)

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