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**BCACAC 260**

**Credit Based Fourth Semester B.C.A. Degree  
Examination, September 2022  
(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**

1. a) Define resolution and aspect ratio. **(10×2=20)**  
b) Expand GKS and PHIGS.  
c) Write two drawbacks of DDA.  
d) Define line cap and mention its three types.  
e) Write matrices to represent translation and scaling in homogeneous coordinate system.  
f) What is clipping ? List its types.  
g) Name any four Image Formats.  
h) What is interactive media ?  
i) What is dithering ?  
j) What is 3-D animation ?  
k) List two drawbacks of CD-ROM technology.  
l) Mention any two analog broadcast video standards.

**PART – B  
Unit – I**

2. a) Explain Raster scan display system with a neat diagram.  
b) Derive the mid-point algorithm to draw a circle.  
c) Write a note on touch panel and light pen. **(5+6+4)**

P.T.O.



- 3. a) With a neat diagram explain the working of CRT.
- b) Write and explain DDA algorithm.
- c) Explain boundary fill algorithm. **(5+6+4)**

**Unit – II**

- 4. a) Explain the pivot point rotation with an example.
- b) Explain the procedure of Cohen-Sutherland line clipping algorithm.
- c) Write a note on Pattern fill. **(5+6+4)**
- 5. a) What is a reflection ? Explain various types of reflection.
- b) Explain the procedure of Sutherland Hodgeman polygon clipping along with suitable diagrams.
- c) Write a note on line attributes. **(5+6+4)**

**Unit – III**

- 6. a) Write a note on bitmaps.
- b) Explain the application of multimedia in various fields.
- c) Explain sampling and quantization. **(5+6+4)**
- 7. a) What are the different methods for searching in hypermedia ?
- b) Explain any five editing in digital recording.
- c) Write a note on MIDI audio. **(5+6+4)**

**Unit – IV**

- 8. a) Write a note on MPEG.
  - b) List and explain various types of multimedia authoring tools.
  - c) Write a short note on shooting platforms. **(5+6+4)**
  - 9. a) What is animation ? Explain the basic principles of animation.
  - b) Give some suggestion for creating good titles for video.
  - c) Write a note on sound display and interface. **(5+6+4)**
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