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BCACAC 260

IV Semester B.C.A. Degree Examination, April/May 2019

(Credit Based Semester Scheme)

(Common to All Batches)

Computer Graphics and Multimedia

Time : 3 Hours]

[Max. Marks : 80

Instructions : Answer any ten questions from Part - A and one full question from each Unit in Part - B.

PART - A

1. Answer **any ten** of the following :

- Define aspect ratio.
- Expand GKS and PHIGS.
- What is the purpose of frame buffer?
- List any four character attributes.
- Write the purpose of the homogeneous coordinate system.
- What is meant by differential scaling?
- What is interactive media?
- Why digital audio is called device independent?
- Name any four Image File Formats.
- What is morphing in animation?
- Define story boarding.
- List two drawbacks of CD-ROM technology.

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PART - B

UNIT - I

2. (a) Explain the architecture of vector display system with a neat diagram.
(b) Explain the DDA algorithm.
(c) Explain flood filling with a procedure.

(5 + 5 + 5)



3. (a) Write a note on touch panel and light pen.
(b) Explain Midpoint circle algorithm.
(c) Explain two methods for generating thick primitives.

(5 + 5 + 5)

UNIT - II

4. (a) Consider the polygon with vertices A(200, 200), B(250, 200), C(250, 100), D(200, 100). Rotate this polygon by 45 degree about A(200, 200) and write the coordinate of new points.
(b) Explain window to viewport transformation with a suitable diagram.
(c) What is clipping? Explain trivial accept, trivial reject and partial accept cases with suitable example.
5. (a) Explain various Reflection transformations with suitable diagrams.
(b) Write a note on Pattern fill.
(c) Explain the procedure of Sutherland Hodgeman polygon clipping along with suitable diagrams.

(6 + 5 + 4)

(6 + 3 + 6)

UNIT - III

6. (a) Write a note on additive and subtractive colors.
(b) Write the steps involved to bring an audio recording into multimedia project.
(c) Explain sampling and quantization.
7. (a) List and explain different attributes of font.
(b) Write a note on vector drawing.
(c) List the drawbacks of MIDI.

(5 + 5 + 5)

(5 + 5 + 5)

UNIT - IV

8. (a) Write a note on Animation File Formats.
(b) Give some suggestions for creating good titles for video.
(c) Write a note on video compression (CODEC).
9. (a) Explain the various image recognition steps.
(b) Explain how digital video is recorded?
(c) Write a note on MPEG.

(5 + 5 + 5)

(5 + 5 + 5)