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BCACAC 260

**Credit Based Fourth Semester B.C.A. Degree Examination, April/May 2014
(New Syllabus – 2013-14 Batch)
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) What are the advantages and disadvantages of DVST ?
- b) What are the two types of printers ? Give example for each.
- c) Write the nested loop C statements for filling a Rectangle.
- d) Explain Region in ellipse.
- e) What is Shear transformation ? Write the matrix for x-direction Shear.
- f) Write Rotation and Translation matrix for homogenous coordinates.
- g) What is a Line Cap ? List various types.
- h) Define the following :
 - i) Window
 - ii) View port
- i) Define the following :
 - i) Multimedia
 - ii) Interactive Multimedia
- j) What are the text elements used in Multimedia ?
- k) What is Sound ? Write the characteristics of Sound.
- l) List four video broadcast standards.

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PART – B

UNIT – I

2. a) Explain Refresh CRT monitor. (4+4+7)
b) Write a note on Graphics Software.
c) Derive Mid-point algorithm to draw an ellipse.
3. a) List the differences between Raster and Random scan system. (4+4+7)
b) Explain Flood fill algorithm.
c) Write and explain DDA line drawing algorithm.

UNIT – II

4. a) Explain the different Text attributes. (5+6+4)
b) What is transformation ? Discuss three basic 2D transformations with suitable example.
c) Explain general Pivot-Point Rotation with example.
5. a) Explain window to view port coordinate transformation with a suitable diagram. (4+4+7)
b) Prove that two successive scalings are multiplicative.
c) Write and explain Cohen-Southerland line clipping algorithm.

UNIT – III

6. a) List and explain the applications of multimedia in various fields. (4+4+5+2)
b) What are the points to be considered while choosing text font in multimedia ?
c) List and explain various Sound editing operations.
d) Write a note on Image File formats used in Multimedia.
7. a) List and explain different attributes of font. (5+4+3+3)
b) Differentiate MIDI and Digital Audio.
c) Explain Bitmap and Vector image.
d) Write a note on Additive and Subtractive colors.



UNIT – IV

8. a) What is Animation ? Explain basic principles of animation. (5+4+3+3)
b) List and explain the stages of multimedia project.
c) List the features of 3D modeling tools.
d) List and explain various types of Multimedia Authoring Tools.
9. a) List the features of Image editing tools. (4+4+4+3)
b) List the various suggestions for creating good title in video.
c) Explain capabilities of multimedia Authoring tools.
d) Write a note on video compression (CODEC).

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