

Reg. No.

--	--	--	--	--	--	--	--	--	--

BCACAC 260

Credit Based Fourth Semester B.C.A. Degree Examination, April/May 2017
(New Syllabus – 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) Write any two drawbacks of light pens.
- b) What is 4-way symmetry of an ellipse ?
- c) Expand PHIGS and GKS.
- d) What is a line cap ? List various types.
- e) What is a rigid body transformation ? Give example.
- f) List any four character attributes.
- g) Define hypermedia.
- h) What is virtual reality ? Give examples.
- i) What are tags in HTML ? Give some examples.
- j) What are the text elements used in Multimedia ?
- k) What is morphing in animation ?
- l) List four video broadcast standards.

(10×2=20)

PART – B

UNIT – I

2. a) Explain the architecture of Vector display system with neat diagram.
- b) Write and explain DDA Line algorithm.
- c) Derive Bresenham's line drawing algorithm.
3. a) Derive mid-point algorithm to draw a circle.
- b) Explain boundary fill and flood fill techniques. Write the algorithm for each.
- c) Explain different types of hard copy devices.

(5+4+6)

(6+5+4)

P.T.O.



UNIT – II

4. a) Prove that successive translations and successive rotations are additive and successive scaling is multiplicative.
b) Explain window to viewport transformation with a suitable diagram.
c) Explain how color values are stored in a color lookup table. (6+5+4)
5. a) Explain the procedure of Sutherland-Hodgeman polygon clipping along with suitable diagrams.
b) Explain general pivot-point rotation with a suitable diagram.
c) Write a note on pattern fill. (6+5+4)

UNIT – III

6. a) Explain the application of multimedia in various fields.
b) List and explain different sound editing operations.
c) Write a note on virtual reality. (6+5+4)
7. a) Explain five types of searches in Web.
b) Write a note on bitmaps.
c) Write a note on additive and subtractive colors. (5+5+5)

UNIT – IV

8. a) Discuss intangible elements needed to make good multimedia.
b) Write a note on shooting platforms.
c) Write a note on MPEG. (6+5+4)
9. a) List and explain various types of multimedia authoring tools.
b) Give some suggestions for creating good titles for video.
c) What is animation ? Explain the basic principles of animation. (6+5+4)