

AC-357**B.C.A. (IV Sem.) Examination, June 2015****(C-401)****COMPUTER GRAPHICS & MULTIMEDIA APPLICATIONS***Time : Three Hours]**[Maximum Marks : 75**[Minimum Marks : 30***Note :** Attempt any **five** questions. **Each** questions carry equal marks.

1. (a) Describe Raster-Scan display in brief. What are the advantages of interactive graphics ? 6
- (b) Differentiate between Raster Scan display and vector graphics. Compare the merits and demerits of raster scan and flat panel display. 5
- (c) Scan convert a line from (10,10) to (20,10) using Bresenham's line drawing algorithm. 4
- (a) Scan convert an ellipse with Semi-major axis=9 and Semi-minor axis=6 using midpoint ellipse algorithm at center (0,0) 5
- (b) Describe the Cyrus-Beck line clipping method in detail. 5
- (c) Explain the working of graphics tool "Dream Weaver". 5
- (a) Describe mid-point subdivision polygon clipping algorithm. 5
- (b) Describe the concept of transformation in details, Explain various types of transformations (2-D) with its relevance. 6
- (c) Find the normalization transformation which views the rectangle A(2,1), B(6,3), C(4,5), D(0,4) as a window and normalized device screen as a view port. 4

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4. (a) What do you understand with Boundary Representation? Explain in detail
Write the algorithm for boundary Fill and flood fill algorithm. 8
- (b) Describe Hermite cubic curves and surfaces in detail. 7
5. (a) What do you understand with computer animation? Explain the various
functions those are used for animation. 9
- (b) What is multimedia? Define the following term related to Multimedia - 6
 - (i) RLE
 - (ii) LZW
 - (iii) JPEG
6. (a) Specify clearly about the Hardware and Software requirement for creating
a multimedia. Describe the usage and advantages of multimedia. 9
- (b) Define the following term for multimedia : 6
 - (i) Data Compression
 - (ii) Morphing
 - (iii) MP3
7. (a) Write the short notes on the following : 5×3 =15
 - (i) Cyrus-Beck Algorithm
 - (ii) Quadric Surface
 - (iii) Video on demand