# (4)

(b) Short notes on :

Α

- (i) 3D Transformation Matrix
- (ii) 2D Transformation Matrix

# Unit-I V

- (a) Define the Animation with its different types. Explain each in details. 7<sup>1</sup>/<sub>2</sub>
  - (b) What is Multimedia? Explain any two of its application.  $7\frac{1}{2}$
- (a) What are the hardware and software requirement for the Multimedia projects.
   Explain any two hardware or software.

7 ½

 $7\frac{1}{2}$ 

(b) Different issues & challenges in Multimedia Project. 7<sup>1</sup>/<sub>2</sub> Roll. No. \_\_\_\_\_

# SFS-4708

- B.C.A. (Semester-IV) Examination, 2015 (New Syllabus) Comp. Graphics & Multimedia Application (BCA-S-206-T) Time Allowed : Three Hours ] [Maximum Marks : 100
- Note : Answer five questions in all. Question No.1 is compulsory. Attempt one question from each unit I, II, III and IV.
- 1. Attempt all :  $10 \times 4 = 40$ 
  - (a) Explain Computer Graphics with its application.
  - (b) Explain types of computer graphics.
  - (c) Explain CRT.
  - (d) Explain Circle Mid-Point algo in short
  - (e) Briefly explain Input Devices for Operation Interaction.

# (2)

- (f) How does resolution of a system affect graphic display?
- (g) Short note on Boundry Representation.
- (h) Explain Spatial Partitioning Representation.
- (i) Explain CD-ROM.
- (j) Explain Simulations.

#### Unit-I

- (a) Explain the frame buffer using appropriate diagram in detail. 7<sup>1</sup>/<sub>2</sub>
  - (b) What do you mean by Staire Case effect? Explain by giving suitable examples.

7 1⁄2

71/2

- 3. (a) Explain Bresenham line algorithm in detail.
  - (b) Draw a line segment from point (3, 5) to
    - (8, 8) using DDA algo.  $7\frac{1}{2}$

# Unit-II

4. (a) Explain Cohen-Sutherland line clipping algo by giving suitable example.  $7\frac{1}{2}$ 

- (3)
- (b) Draw line segment having end points
   (14,4) and (24,12) by using Bresenham
   line algo. 7<sup>1</sup>/<sub>2</sub>
- Explain Raster Scan Display system with the define its functionality using appropriate diagram. Also explain the differences between Raster Scan Display and Random Scan Display.

# Unit-III

- 6. (a) Perform a 45<sup>°</sup> rotation of a triangle
   A (5,5), B (8,10), & C(11,5). 7<sup>1</sup>/<sub>2</sub>
  - (b) Explain shearing transformation by example.
    7<sup>1</sup>/<sub>2</sub>
- 7. (a) Translate a square WXYZ with co-ordinates W(5,5), X (10,5), Y(10,10) and Z(5,10) by 3 units in X-direction and 4 units in Y-direction.

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P.T.O.