Reg. No. : .....

Code No. : 1367 **Sub. Code : DNA 3 B**

B.C.A. DEGREE EXAMINATION, NOVEMBER 2013.

Third Year — Non- Semester

Computer Application — Main (DD & CE)

Paper XI — COMPUTER GRAPHICS AND MULTIMEDIA

(For those who joined in July 2008 onwards)

Time : Three hours Maximum : 100 marks

PART A — ($5 \times 5 = 25$ marks)

Answer any FIVE questions out of Eight.

1. Explain the function used to display character strings in PHIGS.

2. What is meant by uniform scaling?

3. Write notes on splitting concave polygons for clipping.

4. Obtain the transformation matrix for rotation about the X axis.

5. Write notes on back-face detection.

6. Explain raster-scan displays.

7. What is meant by translation distance and translation vector?

8. Explain window to viewport coordinate transformation.

PART B — ($5 \times 15 = 75$ marks)

Answer any FIVE questions out of Eight.

9. Write and explain the DDA algorithm for line drawing.

10. How is translation represented using matrix representation? Illustrate with an example.

11. Implement the Liang-Barsky line clipping algorthim.

12. Write a procedure to implement general rotation transformations using the rotation matrix.

13. Write in detail about parallel projections. Illustrate.

14. Write in detail about the function of refresh Cathode-ray tubes.

15. Write in detail about the two-dimensional basic transformations.

16. Explain how Cohen-Sutherland line clipping is performed.

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