(b) Rotation

(c) Scaling

(d) Reflection and Shear transformations

9. Describe the following : [16]

(a) Viewing coordinates

(b) View volume.

Roll No. .....

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B.C.A. 5th Semester (New)

Examination– November, 2016

Computer Graphics

Paper-BCA-302

Time : 3 hours ***Max. Marks : 80***

Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard will be entertained after the examination.

Note : Attempt **five** questions. Q. No. 1 is **compulsory**. Select **one** question from each unit. All questions carry equal marks.

1. Explain the following : [4×4 = 16]

(a) Flood fill algorithm

(b) Cyrus-Back line clipping algorithm

(c) Hermite Curve

(d) 3D viewing.

Unit-I

2. Give a complete description about output devices and interactive input devices. [16]

3. (a) Give a brief idea about Bresenham's line algorithm. [8]

(b) What do you mean by Trigonometric method of defining an ellipse ? [8]

Unit-II

4. Explain the following : [16]

(a) Reflection and shear transformations in 2-D geometric transforms.

(b) Composite transformations in 2-D geometric transforms.

5. Describe the following : [16]

(a) Midpoint sub-division method

(b) Cohen-Sutherland algorithm

Unit-III

6. Describe the following : [16]

(a) Polygon surfaces

(b) Polygon rendering methods

7. What do you mean by basic illumination models ? Explain in detail. [16]

Unit-IV

8. What do you mean by 3D geometric transformations ? Also explain the following: [16]

(a) Translation