9. (i) Differentiate between images and animation. Discuss different steps followed for creating an animation in their respective sequence.

(ii) What do you understand by authoring process ? Discuss the concept by taking your own illustration .

Roll No. .....

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MCA 3rd Semester (With New Notes) (Non CBCS) Examination – December, 2018

COMPUTER GRAPHICS & MULTIMEDIA

Paper : MCA-301

Time : Three Hours] *[Maximum 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 examination.

Note : Attempt ***five*** questions in all, selecting ***one*** question from each Unit. Question No. 1 is ***compulsory.*** All questions carry equal marks.

1. (i) List down four most desirable features of Passive Graphics.

(ii) What do you mean by nematic liquids ? Name the device where it is used.

(iii) Give a brief description of the PHIGS standard used for computer graphics.

(iv) Define output primitives. Name any four output primitives used in computer graphics.

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5. (i) Explain the inside outside test used for filling the polygon with the help of an example.

(ii) Briefly define the following : Flood fill algorithm, gray scale levels and Cell array.

UNIT – III

6. (i) What do you mean by rigid body transformations ? Explain the 2D translation and rotation in terms of their matrices with appropriate examples.

(ii) Enumerate why homogeneous co-ordinates are required. Write down homogeneous matrices for all the three basic transformations.

7. (i) Discuss the importance of window to Viewport transformations. Also write down the mathematical equation to transform a given point defined in window co-ordinates into viewport co-ordinates.

(ii) Discuss in detail the Cohen Sutherland Line Clipping algorithm with an example.

UNIT – IV

8. (i) Define multimedia. Briefly discuss different vital components of a multimedia.

(ii) Define the following : Hyper text, Hyper media and Hyper Graphics and their contribution in making multimedia more effective.