

9. Explain the following in detail : 8 + 8 = 16

(a) Hyper Media and Hyper Graphics.

(b) Multimedia software and components of multimedia.

Roll No. ....

67141

**MCA 3rd Semester Current Scheme  
(With New-Notes)**

**Examination – December, 2016**

**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 :** Question No. 1 is compulsory. Attempt four more questions selecting one question from each Unit.  
All questions carry equal marks.

1. Explain the following : 2 × 8 = 16

(a) Graphics Monitors

(b) Color and Grayscale levels

(c) Inside-Outside Tests

- (d) Text Clipping
- (e) Analog to Digital Conversion
- (f) Polygon Clipping
- (g) 3D-Transformation
- (h) Features of Matlab
5. (a) What is Anti-aliasing ? Explain the reasons of aliasing in Computer Graphics and explain the minimization or removing of aliasing in detail.
- (b) Explain the concept of Output Primitives Point and Lines in detail.

### UNIT – III

6. Explain the following in detail : 8 + 8 = 16

- (a) Reflection and shearing.
- (b) Parallel Projection and Perspective Projection.

7. (a) Write down the matrix representation for compound transformation including translation, rotation and scaling. 8

- (b) How is a window transformed on a viewport using two dimensional viewing transformations ? Explain. 8

### UNIT – IV

8. (a) What is Animation ? What is the importance of animation in multimedia ? Explain. 8

- (b) Explain the concept of Authoring Process and Tools in detail. 8

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- (d) Text Clipping
- (e) Analog to Digital Conversion
- (f) Polygon Clipping
- (g) 3D-Transformation
- (h) Features of Matlab
2. (a) Distinguish between Raster Scan System and Random Scan System. 8

### UNIT – I

- (b) What is Computer Graphics ? Explain the applications of Computer Graphics in detail. 8

3. Explain the following in detail : 8 + 8 = 16

- (a) Graphics and Work Stations
- (b) Graphics Software

### UNIT – II

4. Explain the following in detail : 8 + 8 = 16

- (a) Line Drawing Algorithm and Circle Generating Algorithms.
- (b) Boundary-Fill Algorithm and Flood Fill Algorithm.

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