## LOYOLA COLLEGE (AUTONOMOUS), CHENNAI - 600 034

## M.C.A. DEGREE EXAMINATION - COMPUTER APPLICATIONS

THIRD SEMESTER - NOVEMBER 2015

### CA 3875 - COMPUTER GRAPHICS AND MULTIMEDIA APPLICATIONS

Date: 11/	11/2015	Dept. No.	Max.: 100 Marks
Time: 09:0	00-12:00		

#### Part-A

### **Answer ALL Questions**

(10 \* 2 = 20)

- 1. What is the use of shadow mask methods?
- 2. What is Open Inventor?
- 3. What is region code?
- 4. Define clipping window.
- 5. Compare Parallel and Perspective projection.
- 6. Mention the features color Gamut.
- 7. Comment on MPEG.
- 8. Distinguish between image and graphics
- 9. What is Hypertext Abstract Machine?
- 10. List the types of video

#### Part-B

### **Answer ALL Questions**

(5 \* 8 = 40)

11. a) Write short notes on Flat panel display devices.

(or)

- b) Write an OpenGL program to display LINE primitives.
- 12. a) Explain the steps for mapping the clipping window into Normalized viewport.

(or)

- b) Explain the methods for specifying Spline.
- 13. a) Write any four OpenGL functions used for 3D representation.

(or)

- b) Write short notes on Morphing.
- 14. a) What are the steps for creating Multimedia presentation? Explain it.

(or)

- b) Explain how Antialiasing and Dithering can improve image quality.
- 15. a) Write short notes on Video conferencing.

(or)

b) Write short notes on VRML.

# Part- C

# **Answer any Two Questions**

(2 \* 20 = 40)

- 16. a) Discuss DDA line algorithm in detail.
  - b) Explain Cohen-Sutherland line clipping algorithm in detail.
- 17. a) Explain RGB and YIQ color models in detail.
  - b) Explain in brief the major characteristics of DVD video.
- 18. a) Discuss Virtual reality in detail.
  - b) Explain OpenGL three dimensional viewing functions.

\*\*\*\*\*\*\*\*