LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

M.C.A. DEGREE EXAMINATION – **COMPUTER APPLICATIONS**

THIRD SEMESTER – **NOVEMBER 2018**

16PCA3ID01 – COMPUTER GRAPHICS AND MULTIMEDIA

Date: 02-11-2018   Dept. No.   Max. : 100 Marks
Time: 09:00-12:00

PART – A

Answer ALL the questions   10 x 2= 20

1) What is raster graphics?

2) Define resolution and aspect ratio.

3) Answer the following:

   i) Rigid body transformations are _____ and _____.

   ii) Cohen Sutherland line clipping uses 8 regions. **True / False**

4) Differentiate interpolation and approximation splines.

5) Mention the visible surface detection methods.

6) Name the steps in animation sequence.

   Write notes on the following:

7) Hue.

8) Emblem.

9) Primary Colours.

10) Typography.

PART – B

Answer ALL the questions   5 x 8= 40

11) a) List the set of points along the X and Y axis that must be plotted to draw a line starting at pixel (2,3) and ending at pixel (12,8) by using DDA line algorithm.

(OR)

b) Describe Bresenham's line drawing algorithm.

12) a). Elucidate Liang Barsky line clipping algorithm.

(OR)

b) Explain Hermite interpolation method.

13) a) Explain the methods for displaying a 3D image onto a 2D plane.

(OR)

b) Illustrate RGB and YIQ colour models.

14) a) Explain different typefaces with example.

(OR)

b) Describe chromatic Value, Hue and Saturation.

15) a) Explain the influence of psychology of colour in design.

(OR)

b) Elucidate vertical and horizontal spacing.

PART - C

Answer ANY TWO questions   **2 x 20= 40**

16) a) Explain LCDs with a neat diagram.

   b) Elucidate Nicholl-Lee-Nicholl Line Clipping. (10)

17) a) Explain the polygon rendering methods. (10)

   b) Describe back face detection and depth buffer method. (10)

18) a) Elucidate principles of design with suitable examples. (10)

   b).Poster Design is important in creating a social awareness campaign? Justify.(10)

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