

LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034



M.C.A. DEGREE EXAMINATION – COMPUTER APPLICATIONS

THIRD SEMESTER – NOVEMBER 2019

16/17/18PCA3ID01 – COMPUTER GRAPHICS AND MULTIMEDIA

Date: 07-11-2019

Dept. No.

Max. : 100 Marks

Time: 01:00-04:00

PART – A

Answer ALL questions

10 X 2 = 20

1. Draw the architecture of Raster graphics system.
2. Write the OpenGL menu functions.
3. Define shear in 2D.
4. Give the method of specifying spline.
5. List the type of projection transformation.
6. Define Morphing.
7. What is Visual Design?
8. Define Monospace font.
9. Write the purpose of Title in design.
10. Define Balance of design.

PART – B

Answer ALL questions

5 X 8 = 40

11. a) Describe the basics of OpenGL programming environment.
Or
b) Explain the mid- point circle generation algorithm.
12. a) Define clipping window. Explain window-to-view port transformation.
Or
b) What are splines? Explain its representation and specifications.
13. a) Write note on the following:
(i) Depth – Buffer Method
(ii) A- Buffer method.
Or
b) Describe polygon rendering method.
14. a) Explain the concept Leading and Kerning in Text spacing.
Or
b) Discuss about principles of design.
15. a) Write all the elements to create a Business card.
Or
b) What is rule of thirds? Why it is used in visual design.

PART – C

Answer any TWO questions

2 X 20 =40

16. a) Derive the line equation and develop the Digital Differential Line drawing algorithm.

b) Discuss on the techniques of 2D line clipping.

17. a) Explain the following 3D transformation:

(i) Translation (ii) Rotation (iii) Scaling

b) How Psychology of colour affects the design? Discuss.

18. a) Why Poster Design is important in creating a social awareness campaign? Justify.

b) Discuss on 3D projection techniques.

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