Paper code: 13522

1522

B.Sc. (Computer Science) (Part 3)

Examination, 2018

Paper No. 2.1

INTRODUCTION TO COMPUTER GRAPHICS

Time: Three Hours] [Maximum Marks: 50

Note: Attempt any five questions in all selecting one question from each section. All questions carry equal marks.

Section-A

1. (a) What is Computer Graphics? Explain various application areas of Computer Graphics.

(b) Differentiate between random scan display and raster scan display.

1. What are the various input devices and output devices used in Computer graphics? Explain in brief.

Section-B

1. (a) What is antialiasing? Explain.

(b) What is the difference between pixel and points?

(c) Implement the DDA algorithm to draw a line from (0,0) to (5,5).

1. (a) What is line clipping and polygon clipping? Can you use line clipping algorithm for polygon clipping? Justify. http://www.mjpruonline.com

(b) What is pattern filing? Explain.

Section-C

1. What are basic transformation? Define each of them with at least one suitable example.

(a) Why are homogeneous co-ordinates used for transformation computation in Computer Graphics?

(b) How one can reflect an object about a line? Explain.

Section-D

1. What is Projection? Explain parallel projection and perspective projection.

2. Explain the 3D transformation conceptual model with a neat diagram.

Section-E

1. Write short notes on any two of the following:

2. Hidden line and surfaces

3. Visible surface determination

4. Animation

……..End……..