Total No. of Questions : 4]

PD-445

SEAT No. :

[Total No. of Pages : 2

[6409]-283

S.E. (Computer Science and Engineering) (Data Science) (Insem.)

COMPUTER GRAPHICS

(2019 Pattern) (Semester-IV) (210656)

Time : 1 Hour] *[Max. Marks : 30*

Instructions to the candidates :

1) *Solve Q.1 or Q.2 and Q.3 or Q.4.*
2) *Neat Diagram must be drawn wherever necessary.*
3) *Figure to the right indicates full marks.*
4) *Assume Suitable data if necessary.*

Q1) a) Define the following term:

i) Aspect ratio
ii) Frame buffer
iii) Pixel
iv) Resolution

b) Difference between Raster Scan System and Random Scan System. [4]

c) What is OpenGL? Write its features and Functions. [6]

[5]

OR

Q2) a) Write Bresenham's circle drawing algorithm. Plot the circle with center coordinate (0,0) and radius r = 3. [4]

b) What is computer graphics? State the application of computer Graphics. [6]

c) Explain DDA line Drawing algorithm. Consider line segment from A (2,1) to B (7,4) use DDA line drawing algorithm to rasterize this line. [5]

P.T.O.

Q3) a) What is Polygon? What are the types of Polygon? [4]

b) Rasterize the line AB using Bresenham's Line algorithm Where A= (4,4) B= (12,9) [6]

c) Compare DDA and Bresenham's line drawing algorithm [5]

OR

Q4) a) Explain polygon fill with- Boundary fill algorithm. [4]

b) Write and explain any one inside test algorithm. [6]

c) Write block structure of OpenGL window Creation. [5]

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