MAX-003-003401 Seat No. _____

B. C. A. (Sem. IV) (CBCS) Examination

March / April - 2018

CS - 19 : Graphics using C

(Old Course)

Faculty Code : 003

Subject Code : 003401

Time : $2\frac{1}{2}$ Hours] [Total Marks : **70**

1 Write answer in one or two statements : **20**

(1) The Cartesian slope-intercept equation for a straight line is _____

(2) VGA stands for _____

(3) The transformation that is used to alter the size of an object is _____

(4) _____ approach is used to construct Bezier curve.

(5) In 2D-translation, a point (x, y) can move to the new position (x', y') by using the equation _____.

(6) _____ is a rigid body transformation that moves objects without deformation.

(7) The original coordinates of the point in polor coordinates are _____

(8) The two-dimensional rotation equation in the matrix form is _____

(9) If $(x1, y1)$ is greater that $(x2, y2)$, line is drawn from right to left. (true/false)

(10) Define Self Square Fractal.

(11) _____ fractals have parts that are scaled down version of the entire object.

(12) Which function is used to switch from text mode to graphics mode?

(13) Ellipse function requires _____ parameters.

(14) Which command draw a line at a relative distance from current position?

(15) Interrupt 33H with service number _____ is used to show mouse pointer.

(16) Syntax for initgraph( ) is _____

(17) Give the name of stack based seed filling algorithms.

(18) arc( ) function has _____ parameters.

(19) _____ is used in Sutherland Cohen line clipping algorithm.

(20) A circle, if scaled only in one direction becomes a _____

2 (A) Attempt any **three** : **6**

(1) Explain Resolution.

(2) Define Pixel.

(3) What is Clipping?

(4) detectgraph( )

(5) getpixel( )

(6) outtextxy( )

(B) Attempt any **three** : **9**

(1) Explain Homogenous Coordinate.

(2) Write Advantages and Disadvantages of DDA line drawing.

(3) Text mode vs. Graphics mode.

(4) Write algorithm for Brasenham circle drawing.

(5) Write program for DDA line drawing.

(6) Write a program to draw circle using mouse.

(C) Attempt any **two** : **10**

(1) What is Chart? Explain types of Chart.

(2) Write steps for Cohen Sutherland line Clipping Algorithm.

(3) What is filling? Explain floodfill procedure with example.

(4) Write a note on Transformation.

(5) Write a program for drawing pie chart.

3 (A) Attempt any **three** : **6**

(1) Explain Translation.

(2) Explain properties of Bezier curve.

(3) What is Scaling?

(4) putimage( )

(5) textwidth( )

(6) imagesize( )

(B) Attempt any **three** : **9**

(1) Explain B-spline Curve.

(2) Explain Boundryfill Procedure.

(3) Write a program to draw self-similar fractals.

(4) Explain rotation and shearing.

(5) Explain Windowport and Viewport.

(6) Explain Fractal Dimension.

(C) Attempt any **two** : **10**

(1) Explain Sutherland Cohen line clipping algorithm.

(2) Explain Bezier curve with example.

(3) Write a program to perform composite transformation using matrix.

(4) Write a program for Boundary-fill procedure.

(5) Explain int86( ) function in detail.