MK-159
003-003401
B. C. A. (Sem. IV) Examination
April / May – 2012
Computer Graphics Using 'C'

Faculty Code : 003
Subject Code : 003401

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

1 Answer following MCQ : 20

(1) The maximum number of points that can be displayed without overlap on a CRT is referred to as the _____

(a) Graphic

(b) Resolution

(c) Text

(d) None

(2) DDA stands for _____

(a) Digital Differential Analyzer

(b) Digital Different Analysis

(c) Digital Difference Algorithm

(d) None

(3) The int86 () Function used to generate 5100 interrupts which involves _____ function.

(a) ROMBIOS

(b) ROMBIES

(c) ROMEBIOS

(d) RAMBIOS

(4) The int86() function requires _____ arguments.

(a) One

(b) Two

(c) Three

(d) Four

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

(a) Self-Similar

(b) Self-affine

(c) Self-Square

(d) None

(6) Which is the second argument of int 86() function ?

(a) the no corresponding to the ROMBIOS function

(b) union variable represent value being sent to ROMBIOS function

(c) union variable represent values being return from the ROMBIOS function

(d) None

(7) _____ function switches you from text mode to graphics mode.

(a) initgraph ()

(b) detectgraph ()

(c) initgraphics ()

(d) Both (a) and (b)

(8) Which statement is true ?

(a) initgraph (int*driver, int*mode, char*path)

(b) initgraph (int*driver, int*mode)

(c) initgraph (int*driver, char*path)

(d) initgraph (int*driver, int*mode, char*path, flag)

(9) _____ function returns the maximum number of pixels in each row.

(a) getmaxx ()

(b) getmaxy ()

(c) getmaxxy ()

(d) getmaxix ()

(10) Line function requires_____ parameters.

(a) One

(b) Two

(c) Three

(d) Four

(11) Ellipse function requires _____ parameters.

(a) Six

(b) Five

(c) Four

(d) Three

(12) Colour is from _____

(a) 1 to 15

(b) 0 to 14

(c) 0 to 15

(d) 1 to 12

(13) Which statement is true ?

(a) void bar3d(int left, int top, int right, int bottom, int depth)

(b) void bar3d (int left, int top, int right, int bottom, int topflag)

(c) void bar3d (int left, int top, int right, int bottom, int depth, int topflag)

(d) None

(14) Which statement is true ?

(a) setlinestyle (int linestyle, unsigned upattern, int thickness)

(b) setstyle (int linestyle, unsigned upattern, int thickness)

(c) linestyle (int linestyle, unsigned upattern, int thickness)

(d) setlinestyle (int linestyle, unsigned upattern, int thickness, int colour)

(15) Which is the equation of straight line ?

(a) $y = mx^{2r}+c$

(b) $y = x+c$

(c) $y = x +mc$

(d) $y = mx +c$

(16) Equation is $X' = x+tx$ $Y' = y+ty$

(a) Translation

(b) Scaling

(c) Shearing

(d) Reflection

(17) Not a chart type

(a) Pie chart

(b) Bar chart

(c) Line chart

(d) Square chart

(18) For Restrict mouse pointer has interrupt 33H with service number_____.

(a) 0 & 1

(b) 7 & 8

(c) 2 & 3

(d) 3 & 4

(19) To get mouse position has interrupt 33H with service number_____.

(a) 0

(b) 1

(c) 2

(d) 3

(20) To show mouse pointer has interrupt 33H with service number_____.

(a) 0

(b) 1

(c) 2

(d) 3

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

(i) What is Computer Graphics ? And explain any 2 CG applications.

(ii) Write a note on Resolution.

(iii) Write the Algorithm steps for DDA line Drawing.

(iv) Write Advantages and Disadvantages of DDA line.

(v) Explain setgraphmode and restorecrtmode functions.

(vi) Give the differences :

(a) outtext v/s outtextxy

(b) moverel v/s moveto

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

(i) Explain graphdefaults, grapherrormsg, graphresult functions.

(ii) Explain imagesize, getimage, putimage functions.

(iii) Discuss 2D Coordinate System.

(iv) Write a program for DDA line drawing.

(v) Write a difference between Text mode and Graphics mode.

(vi) Write the Algorithm steps for Brasenham circle drawing.

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

(i) Explain Brasenham ellipse drawing Algorithm.

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

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

(iv) What is filling ? Explain Floodfill procedure with example.

(v) Write a program for freehand drawing using mouse.

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

(i) Explain the Properties of Bezier curve.

(ii) What is Transformation ? Why we use the Transformation in Computer Graphics.

(iii) Write a note on Fractals.

(iv) Write the Algorithm steps for Circular Arc drawing.

(v) Write a note on Translation in Transformation.

(vi) Explain the cleardevice and clearviewport functions.

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

(i) Write a UDF for show mouse pointer and hide mouse pointer.

(ii) Discuss on Windowport and Viewport.

(iii) What is Dimension in Fractals ? Explain the types of Dimension.

(iv) Write a note on Scaling Transformation.

(v) Write a note on Shearing Transformation

(vi) Write a UDF for get mouse position and restrict mouse pointer.

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

(i) Write a program for Rectangle drawing using mouse.

(ii) Explain the Homogeneous Coordinate System.

(iii) Explain the Classification of Fractals.

(iv) Explain the Rotation Transformation.

(v) Write a program for Boundaryfill procedure.
