VCD 020315 (2014) 2/3/15

VCD S.Y.B.S.C (C.S.) - COMP-I -SEM-IV - 2014-2015 – 75 – 2½HRS

NOTE: 1) Diagrams should be Neat and labeled.
2) All Questions are compulsory.
3) Right side indicates marks.

Q.1) Attempt any four. [20]

A) Derive steps in midpoint's circle.
B) Write applications of computer graphics.
C) Draw the circle with center (10,10) and radius 15 using bresenham circle.
D) Define pixel. Explain bitmap and vector based image.
E) Differentiate raster scan method and random scan method.
F) Explain setfillstyle () and arc() with example.
G) Explain setcolor() and line() with example.
H) Derived steps for DDA line.

Q.2) Attempt any four. [20]

A) What is polygon clipping ?Explain it.
B) Explain cohen-sutherland line clipping algorithm.
C) What is clipping ? Explain character clipping.
D) Explain wire frame model.
E) Describe Bezier curve with there properties.
F) How map window port to view port. Explain it with its steps.
G) Differentiate interpoliation curve and approximation curve.
H) Write short note on spline curve.

Q.3) Attempt any four. [20]

A) Write short note on 1. Texture mapping 2 .Morphing
B) Describe illumination model.
C) Explain z-buffer algorithm.
D) Explain shading technique in detail.
E) Explain components of computer animation.
F) What is shadow? Explain its types.
G) Describe Umbra and penumbra using shadow.
H) Describe illumination model.

Q.4) Attempt any three. [15]

A) Describe CRT with components.
B) Consider line AB with A=(-1,0) and B=(-8,4). Apply DDA line algorithm and calculate pixel on this line.
C) Explain initgraph ( ) and detectgraph().
D) Explain window port and view port.
E) Derived steps for bresenham's line.
F) Explain outtextxy() and circle() with example.