MCA – 32

III Semester M.C.A. Examination, Feb./March 2010
ADVANCED COMPUTER GRAPHICS

Time : 3 Hours Max marks : 100

Instructions *: 1) Answer **all** questions in Part **A**, **5** out of **8** questions in Part **B**, and **4** out of **6** questions in Part **C**.*
*2) Part **A** : Questions from **1** to **8** carry **1** mark and **9** to **14** carry **2** marks **each**.*
*3) Part **B** : **Each** question carries **8** marks*
*4) Part **C** : **Each** question carries **10** marks.*

PART – A

1. What is computer graphics?
2. What is resolution?
3. What is flood fill?
4. What is segment?
5. What is animation?
6. Mention positioning techniques.
7. What are control points?
8. Mention the application areas of computer graphics.
9. What is a view point?
10. What is point clipping?
11. What is staircase effect?
12. State pointer's algorithms.
13. What are Bezier curves?
14. What is kinetic depth effect?

P.T.O.

PART – B

1. Explain with block diagram how pictures are stored and displayed?
2. With diagram explain the basic design of magnetic deflection CRT.
3. Explain the following input devices?
   (a) mouse (b) joystic (c) light pen
4. Explain rubber band technology?
5. What are the needs for 3-D technology?
6. Explain polling and event queue?
7. Discuss parallel and perspective projection
8. Explain solid area conversion?

PART – C

1. Discuss different graphics functions in 'C' Language
2. Explain DDA algorithms
3. Explain the need for clipping and windowing
4. Explain the different transformations
5. Discuss the depth buffer algorithm
6. Explain Southland- Hodge man clipping algorithms

———————