IMCA – 33

III Semester Int. M.C.A. Examination, February/March 2010
COMPUTER GRAPHICS

Time : 3 Hours Max. Marks: 100

Instructions: *1) Answer **all** questions in Part – **A**, **5** questions in Part – **B**, and **4** questions in Part – **C**.*
*2) PART – **A**: Questions from **1** to **8** carry **1** mark **each** 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

Answer **all** Questions and **each** question carries **1** mark. **20**

1. Define morphing.
2. Define resolution.
3. Give an example for a pointing device.
4. What is parallel projection?
5. Name the algorithm that work on the concept of area coherence.
6. What do you mean by persistence w.r.t, go computer graphics ?
7. What is the disadvantage of approximating mathematical calculations ?
8. What is clipping ?

Answer **all** Questions and **each** question carries **2** marks.

9. What is Interactive computer graphics ?
10. What is multimedia ?
11. Mention the three basic colours in graphics.
12. Mention various qualities of a good line drawing algorithm.
13. What is kinetic depth effect ?
14. Explain coherence.

P.T.O.

PART – B

Answer **any 5** questions. **Each** Question carries **8** marks. **(5×8=40)**

1. Explain various applications of computer graphics.
2. Explain the working of CRT through a neat diagram.
3. Explain various input devices.
4. Write DDA line drawing algorithm and illustrate the same for the points (2,4) and (3,6).
5. a) Differentiate between a window and a view port.

   b) Explain the applications of 3D imaging.
6. Explain the three basic transformations.
7. Write the depth - buffer algorithm for removing a hidden surface.
8. Explain viewing transformations.

PART – C

Answer **any 4** questions. **Each** Question carries **10** marks. **(10×4=40)**

1. Explain the function of a direct view storage tube with a neat diagram.
2. Explain any five "C" graphics functions and their attributes.
3. Write a C program to implement Bresenham's circle drawing algorithm.
4. Explain Sutherland - Hodgeman clipping algorithm.
5. Explain 3 Dimensional transformations in detail.
6. Write a note on a) Area Coherence algorithms b) Priority algorithms.

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