FACULTY OF INFORMATICS

B.E. 3/4 (IT) II – Semester (Main) Examination, May/June, 2011
COMPUTER GRAPHICS (Elective – I)

Time : 3 Hours]   [Max. Marks : 75

Note : Answer **all** questions from Part – **A**. Answer any **Five** questions from Part – **B**.

PART – A

(Marks : 25)

1. Define aspect ratio.   2

2. Write about the working principle of digitizer.   3

3. List the different types of line caps and joins.   2

4. What is a color look up table ?   2

5. Define world coordinates, device coordinates and normalized coordinates.   3

6. Write about binary region codes for line clipping.   2

7. What are the different types of icons ?   2

8. State the importance of editing structures.   3

9. Distinguish between interpolation and approximation splines.   3

10. Define projection operation.   3

PART – B

(50 Marks)

11. State and illustrate Bresenham's line drawing algorithm for a line with end points (20, 10) and (30, 18) with a slope of 0.2.

12. Explain Roster methods for transformations.

13. With necessary equations and figures explain in detail about window-to-viewport coordinate transformations.

14. Write about hierarchical modeling with structures.

15. In detail explain basic 2D-transformations.

16. Explain the working of Z-buffer method.

17. Write about any **two** of the following :
    (a) Character generation.
    (b) Logical classification in input devices
    (c) BSP trees.

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