

16/05/19

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B.E /B.TECH (Full-time) DEGREE END SEMESTER EXAMINATIONS, APRIL/MAY 2019
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

CS8603 – COMPUTER GRAPHICS AND MULTIMEDIA

REGULATIONS 2012

Time: 3 hr

Max Mark: 100

Answer ALL Questions

Part – A (10x2 = 20Marks)

1. Present any simple anti-aliasing technique for inclined lines.
2. Scan convert a line with end points at [(1, 8), (5, 1)] using any of the line drawing procedures of your choice.
3. Compare **Raster** and **Vector** Graphic types.
4. What is the principle behind Xiaolin Wu's line drawing procedure?
5. Provide the matrix representation for 3D arbitrary fixed point scaling.
6. How to express the shearing operation as a sequence of basic transformations? Give example
7. Differentiate lossy compression from lossless compression?
8. List the various applications of multimedia.
9. How to differentiate virtual and augmented reality ?
10. What are the different retrieving techniques used in multimedia retrieval?



Part – B (5x 16 = 80 Marks)

11. (i) A clipping window PQRS has left corner at (3,4) and upper right corner at (10,9). Find the section of the clipped lines AB[(2,11),(9,2)], CD[(1,4),(4,6)] and EF[(7,11),(11,7)] using Liang Barsky line clipping algorithm. (16)

12. a. Using Midpoint circle drawing procedure, find the points on the second octant ($x \geq y$) of a circle with center at (3, 3) and having a radius of 8 units. (16)

(OR)

b. A clipping window PQRS has left corner at (3,4) and upper right corner at (10,9). Find the section of the clipped lines AB[(2,11),(9,2)], CD[(1,4),(4,6)] and EF[(7,11),(11,7)] using Liang Barsky line clipping algorithm. (16)

13. a. Discuss in detail about the pipeline of two-dimensional viewing transformation (16)

(OR)

b. Elaborate any three color models with the necessary diagram. (16)

14. a. Discuss about image compression in detail with an algorithm. (16)

(OR)

b. With the necessary diagram of tree structure explain R-trees in detail. (16)

15. a Explain video on demand in detail. (16)

(OR)

b Discuss Multimedia authoring software applications in detail. (16)

----- All the Best -----

