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Total Number of Pages: 2

B.Tech
PCCS4401

7th Semester Regular / Back Examination 2016-17
COMPUTER GRAPHICS

BRANCH: CSE

Time: 3 Hours

Max Marks: 70

Q.CODE: Y252

Answer Question No.1 which is compulsory and any five from the rest.
The figures in the right hand margin indicate marks.

Q1 Answer the following questions: (2 x 10)

- a) Show with different diagram the magnetic deflection and Electrostatic deflection in a CRT.
- b) Distinguish between Random scan and Raster Scan.
- c) What is the difference between DDA and Bresenham's Line drawing algorithm?
- d) What is Staircase Effect?
- e) What is a View Port.?
- f) What are various types of 2D Transformation?
- g) What are the various types of Parallel and Perspective projection?
- h) What is the advantage of Using Homogeneous coordinate system?
- i) What is Animation and what are its types?
- j) What is Key frame?

Q2 Derive Bresenham's Line Generation algorithm with the slope ($0 < m < 1$). (2+8)

Q3 a) Digitize the line with end points (20, 10) and (30, 18) by Bresenham's line generation algorithm. (5)

b) Draw a circle of radius 5 and center (2, 2) by using Bresenham's circle drawing algorithm. (5)

Q4 a) Derive Sutherland-Hodgman algorithm for polygon clipping. (5)

b) What is Halftoning? (5)

