SEMESTER- IV

COURSE CODE :- CC8
COURSE TITLE :- COMPUTER GRAPHICS
CREDIT :- 4

Marks distribution

Full Marks: 15 (MSE) + 60 (ESE) = 75 Duration: 3 hrs Pass Marks: 34

This paper consists of 60marksand divided into two groups:

Group-A: Objective questions (Compulsory)	:	1 x 10 = 10
Group-B: descriptive questions (5 out of 8 questions)	:	10 x 5 = 50

Total =		60

The questions must cover the entire syllabus with equal distribution of marks as far as practicable.

Module 1: Overview of Graphics systems**:-**Video display devices, refresh cathode ray tubes, raster-scan and random-scandisplay, colour CRT monitor, direct view storage tubes, random scan system.

Module 2: Lines :line drawing algorithm , DDA and Bresenham'sLine drawing algorithm,Program in C

Module 3: Circle:DDA , Bresenham's and midpoint circle drawing algorithm, Program in C

Module 4: Ellipse generating algorithm, Bezier curve, spline curves, pixel addressing, filled area

Module 5: Scan-line algorithm , boundary fill and flood-fill algorithm.

Module 6: Two dimensional geometric transformation**:** Basic transformation, matrix representation, composite transformation (translation, rotation, & scaling).

Module 7: Raster methods for transformation, viewing pipeline, viewing coordinates frame, clipping (points, line &polygon), Cohen Sutherland line clipping algorithm.

Module 8: Visible surface detection methods: Classification of visible surface detection algorithm, back face detection algorithm, depth buffer algorithm

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Books Recommended:

1. Computer Graphics – Hearn & Baker
2. Computer Graphics – RDS Asthana

PRACTICAL: COMPUTER GRAPHICS

Implementation of DDA and Bresenham's line drawing algorithm, DDA, Bresenham's and Mid-point Circle drawing algorithm,flood fill