

Code: CS6T3

III B.Tech-II Semester–Regular/Supplementary Examinations–March 2019

**COMPUTER GRAPHICS
(COMPUTER SCIENCE & ENGINEERING)**

Duration: 3 hours

Max. Marks: 70

PART – A

Answer *all* the questions. All questions carry equal marks

11x 2 = 22 M

1.

- a) What is Rasterization?
- b) Define Frame buffer and Display file.
- c) Expand RGB and CMYK.
- d) Expand CRT and LCD
- e) List logical Input devices.
- f) What are the uses of dot and cross products in computer graphics?
- g) List difference between inward and outward pointing faces.
- h) Write differences between isometric and perspective projections.
- i) What is the difference between viewing coordinate system and world coordinate system?
- j) How do you find a point whether it is inside or outside of a polygon?
- k) How do you clip curves?

PART – B

Answer any *THREE* questions. All questions carry equal marks.

3 x 16 = 48 M

2. Demonstrate different graphic primitives and their properties. 16 M

3. How would you adapt GLUT functions for programming event driven input using pointing device? 16 M

4. Construct different 2D transformations with transformation matrices. 16 M

5. Construct transformation matrix for perspective projection and apply perspective projection Normalization in open GL. 16 M

6. Apply Cohen-Sutherland line clipping algorithm for clipping following lines against the square window with (0,0) and (10,10) as corners.
 - a) A line starting at (4,-2) and ending at (7,12). 8 M

 - b) A line starting at (-4,4) and ending at (12,7). 8 M