

**B Tech-III (CO) 6<sup>th</sup> semester**

**Course: Computer Graphics (CS-3) (CO306)**

**Midterm Examination Syllabus-March, 2019.**

**1. INTRODUCTORY CONCEPTS**

Coordinate representation, Pixel, Raster Scan & Random Scan methods; Color CRT Raster Scan Basics, Video Basics, Interactive, Graphics Input and Output Devices. Image Formation, Image Representation and Modeling, Overview of Image and Graphics Applications, Vector graphics, Coordinates, points, lines and polygons: Coordinate systems, Geometric shapes using Graphics Libraries.

**2. GRAPHICS PRIMITIVES**

Line, circle, Ellipse Drawing Algorithms. Polygon drawing and Representation of polygon using Conventional methods for drawing polygons; Real time Scan Conversion and Run length encoding; Scanline algorithm; Edge List algorithm, Edge fill algorithm, Fence fill algorithm, Edge flag algorithm, Seed Fill algorithms; Scan Line Seed Fill algorithms

**3. 2D TRANSFORMATIONS**

Scaling, Rotation, Translation, Shearing, Reflection; Combined Transformations; Homogeneous coordinates