

II B. Tech I Semester Supplementary Examinations, Feb/March - 2022**COMPUTER GRAPHICS**

(Computer Science & Engineering)

Time: 3 hours

Max. Marks: 70

-
- Note: 1. Question Paper consists of two parts (**Part-A** and **Part-B**)
2. Answer **ALL** the question in **Part-A**
3. Answer any **FOUR** Questions from **Part-B**
- ~~~~~

PART -A

1. a) What are the merits and demerits of flood-fill algorithms? (3M)
- b) Define Bezier basis function. (2M)
- c) Distinguish between CMY and HSV color models. (3M)
- d) List the problems with interpolated shading methods. (2M)
- e) Differentiate Mandelbrot and Julia sets. (2M)
- f) What is ray tracing? (2M)

PART -B

2. a) Apply the Bresenham's algorithm to turn up pixels along the line segment determined by points (5,7) and (12,11). (7M)
- b) What is reflection and shear transformation? Discuss with examples. (7M)
3. a) Write a brief note about the following: (7M)
i) View plane ii) View reference iii) View plane normal
- b) Differentiate between parallel and perspective projections. (7M)
4. a) Explain about basic OPENGL operations. (7M)
- b) Write notes on RGB color model. (7M)
5. a) Differentiate Flat and Smooth shading. (7M)
- b) Describe the creation of images by iterated functions. (7M)
6. What is a fractal? Write about random fractals in detail. (14M)
7. Write notes on the following: (14M)
a) Boolean operations on Objects
b) Ray Tracing