

Total No. of Questions – [08]

Total No. of Printed Pages- [02]

G.R. No.	
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Paper Code - U228-124 (RE-FS)

MAY 2019/ENDSEM - RE-EXAM

S. Y. B. TECH. (COMPUTER) (SEMESTER - II)

COURSE NAME: COMPUTER GRAPHICS

COURSE CODE: CSUA22174

(PATTERN 2017)

Time: [2 Hours]

[Max. Marks: 50]

Instructions to candidates:

- 1) Answer Q.1, Q.2, Q.3, Q.4, Q.5 OR Q.6, Q.7 OR Q.8.
- 2) Figures to the right indicate full marks.
- 3) Use of scientific calculator is allowed.
- 4) Use suitable data where ever required.

Q.1) a) Explain DDA Line Drawing Algorithm with example. [6]

OR

b) Define the following terms: [6]
1) Pixel 2) Frame Buffer 3) Resolution 4) Aspect ratio.

Q.2) a) Explain inside-outside test for polygon filling. [6]

OR

b) Explain Sutherland Hodgeman polygon clipping algorithm. [6]

Q.3) a) Explain rotation about an arbitrary point with its transformation matrix. [6]

OR

b) Explain Translation, Scaling & Rotation in 2D transformation. [6]

Q.4) a) Draw and explain CIE chromaticity Diagram [4]

OR

b) Explain RGB and HSV color Models. [4]

- Q.5) a) Explain Gouraud Shading Algorithm with example. [6]
b) What do you mean by Point Source illumination and Diffuse illumination. [4]
c) What are the two approach methods of Hidden Surfaces? [4]

OR

- Q.6) a) Explain Z-Buffer Algorithm with example. [6]
b) Explain Phong Shading Algorithm. [4]
c) Explain Specular reflections with multiple light source. [4]
- Q.7) a) Explain Circular Arc generation using DDA Algorithm. [6]
b) Explain Koch Snowflake Curve. [4]
c) Elaborate importance of gaming in research. [4]

OR

- Q.8) a) Define Fractals and give classification of Fractals. [6]
b) Explain Bezier Curve with example. [4]
c) What are the Graphics tools used in Computer Graphics? [4]