

Total No. of Questions – [08]

Total No. of Printed Pages- [02]

G.R. No.	
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Paper code - U229-124 (BE-F&F)

DECEMBER 2019/ENDSEM - Backlog Exam
S. Y. B. TECH. (COMPUTER ENGINEERING) (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) Explain any three character generating Methods. [6]

Q.2) a) Write and explain scan line algorithm for polygon filling. [6]

OR

b) Explain Cohen-Sutherland Line clipping algorithm with example. [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) Explain CIE chromaticity Diagram with example. [4]

OR

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

- Q.5) a) What do you mean by Diffuse illumination and Specular reflection? [6]
b) Explain Phong Shading Algorithm. [4]
c) Explain Warnock Area Subdivision Algorithm. [4]

OR

- Q.6) a) Write and explain Painter's Algorithm. [6]
b) Explain Specular reflections with multiple light source. [4]
c) Explain Gouraud Shading Algorithm. [4]
- Q.7) a) What are the various generations of NVIDIA? Explain any one. [6]
b) Explain Hilbert's Curve. [4]
c) Explain Bezier Curve. [4]

OR

- Q.8) a) Explain OpenGL Architecture with example. [6]
b) Explain Triadic Koch Curve. [4]
c) What do you mean by Spline representation? [4]