

D 90991

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Name.....

Reg. No.....

**THIRD SEMESTER M.A./M.Sc./M.Com. DEGREE (REGULAR)
EXAMINATION, NOVEMBER 2020**

(CBCSS)

Computer Science

CSS 3E 01 A—COMPUTER GRAPHICS

(2019 Admissions)

Time : Three Hours

Maximum : 30 Weightage

General Instructions

1. *In cases where choices are provided, students can attend all questions in each Section / Part.*
2. *The minimum number of questions to be attended from the Section / Part shall remain same.*
3. *There will be an overall ceiling for each Section / Part that is equivalent to maximum weightage of the Section / Part.*

Section A

Answer any four questions.

Each question carries 2 weightage.

1. Compare random scan and raster scan.
2. Define a Spline.
3. What are the applications of computer graphics ?
4. What are the properties of a bezier curve ?
5. Identify the significance of glut function in OpenGL.
6. What is refresh CRT ?
7. Write the significance of texture mapping in computer graphics.

(4 × 2 = 8 weightage)

Section B

Answer any four questions.

Each question carries 3 weightage.

8. What is the significance of homogenous co-ordinates in transformations ?
9. Compare parallel and perspective projections.

Turn over

10. Explain window to view port transformation.
11. How can you represent a curve ?
12. Given $P(2, 5)$, $S_x = 3$, $S_y = 5$ and fixed point $(1, 4)$. Use that matrix to find P' .
13. Illustrate the given statement " Successive Scaling Operations are multiplicative".
14. What is visible surface detection ?

(4 × 3 = 12 weightage)

Section C

*Answer any two questions.
Each question carries 5 weightage.*

15. How does a cathode ray tube work ?
16. Write an OpenGL program to draw a circle.
17. Illustrate the algorithm for Cohen Sutherland line clipping.
18. Explain 3D rotation and write the matrix for different axes.

(2 × 5 = 10 weightage)

