

B.C.A. - III (CBCS Pattern) Semester-V  
**008 - Elective-II-Paper-III : Computer Graphics**

P. Pages : 2

Time : Three Hours



**GUG/W/24/13083**

Max. Marks : 40

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- Notes :
1. All questions are compulsory and carry equal marks.
  2. Draw neat and labelled diagram and use supporting data wherever necessary.
  3. Avoid vague answer and write specific answer related to questions.

**Either:**

1. a) Define Vector Generation. Write an algorithm to generate a line using vector Generation algorithm. 4
- b) Explain different graphics primitive used in 2D computer Graphics. 4

**OR**

- c) Explain display file structure. Write an algorithm to place an instruction into the display file. 4
- d) Explain the following. 4
  - i) Liquid Crystal Display.
  - ii) Random Scan CRT.

**Either:**

2. a) Explain polygon. Explain any one method of filling polygon in detail. 4
- b) Write a short note on scaling. 4

**OR**

- c) Define a translation. Explain translation about the x and y axis. 4
- d) Write a short note on Deleting segment and explain its algorithm. 4

**Either:**

3. a) Define clipping? Explain the adding clipping to the system in short. 4
- b) Explain the following. 4
  - i) Video display device
  - ii) Echoing

**OR**

- c) What do you mean by perspective projection? Explain with example. 4
- d) Explain the difference between perspective and parallel projection. 4

**Either:**

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|-----------|----|---|----------|
| <b>4.</b> | a) | Explain the concept of Z-Buffers in detail. | <b>4</b> |
|           | b) | Write a short note on Transparency.         | <b>4</b> |

**OR**

- |           |    |   |          |
|-----------|----|---|----------|
|           | c) | Write a short note on B-spline curves.          | <b>4</b> |
|           | d) | Write a short note on specular Reflection.      | <b>4</b> |
| <b>5.</b> |    | Solve all the questions.                        |          |
|           | a) | Write a short note on Thick Line Segment.       | <b>2</b> |
|           | b) | Explain the concept of Homogeneous Co-ordinate. | <b>2</b> |
|           | c) | Write a note on Locator with a pick.            | <b>2</b> |
|           | d) | Explain the concept of Back face Removal.       | <b>2</b> |

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