

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

P. Pages : 2

Time : Three Hours



**GUG/S/25/13083**

Max. Marks : 40

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

**Either:**

1. a) What is Vector Generation? Explain primitive Operation in detail. 4
- b) Explain the different types of display devices used in computer graphics. 4

**OR**

- c) What are pixels? How frame buffers are used in graphics display system? 4
- d) Explain Display file interpreter in detail. 4

**Either:**

2. a) What is an 'Inside Test' in computer graphics? Why is it necessary for polygon operations? 4
- b) Discuss how translation transformation is performed in computer graphics. 4

**OR**

- c) What is segment Table? Explain Raster Technique in detail. 4
- d) Write importance of the SIN and COS functions in the context of graphical transformations. 4

**Either:**

3. a) What is a viewing transformation in computer graphics and why is it important? 4
- b) Define clipping in computer graphics and describe its purpose. 4

**OR**

- c) What is event handling in computer graphics? Why is it essential? 4
- d) Explain the 3-D transformation in detail. 4

**Either:**

4. a) What methods are used to perform a hidden surface check? What is its importance? 4
- b) Explain the concept of back face removal in the context of hidden surface elimination. 4

**OR**

- c) Define point-source illumination in shading. How does it affect the appearance of objects. 4
- d) Describe B-Spline curves in details. 4
5. Solve all the questions.
- a) Explain in brief frame buffer. 2
- b) What is concave and convex polygon? 2
- c) Explain Rotation about arbitrary axis. 2
- d) Write note on interpolating polygon. 2

\*\*\*\*\*