B.C.A. - III CBCS Pattern Semester-V

008 - Elective-II-Paper-V : Computer Graphics

P. Pages : 2 **GUG/W/23/13083**

Time : Three Hours * 5 0 6 2 * Max. Marks : 40

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) Write an algorithm for vector generation. **4**

b) Explain the following. **4**
i) Display control.
ii) Frame buffer

OR

c) Write difference between Raster Scan and Random Scan. **4**

d) Explain any two method of character generation in detail. **4**

Either:

2. a) How polygons are represented in computer graphics system. **4**

b) Explain winding number method. **4**

OR

c) Describe 2D scaling transformation along with its matrix form. **4**

d) Explain the segment table in detail. **4**

Either:

3. a) Describe viewing transformation. **4**

b) Explain the concept of Sutherland Cohen Algorithm. **4**

OR

c) Explain parallel projection in detail. **4**

d) Explain 3D transformation in detail. **4**

Either:

4. a) Explain Painter's Algorithm in detail. **4**

b) Explain Lambert's Law in detail. **4**

OR

c) Explain the interpolating polygon in detail. **4**

d) What do you mean by Hidden surface check ? Explain. **4**

5. Solve all the questions.

a) Write short note on DVST. **2**

b) Write short note on shearing. **2**

c) Explain in brief perspective projection. **2**

d) Explain the features of β spline curve. **2**

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