Roll No. ☐☐☐☐☐☐☐☐☐☐☐☐☐☐   Total No. of Pages : 02

Total No. of Questions : 07

B.Sc.(IT) (Sem.–6)
COMPUTER GRAPHICS
Subject Code : BSIT-603/BSB-602
M.Code : 74728
Date of Examination : 08-07-22

Time : 3 Hrs.   Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :
1. **SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.**
2. **SECTION-B contains SIX questions carrying TEN marks each and students have to attempt any FOUR questions.**

SECTION-A

1. **Answer the following :**

   a) What is the difference between Random and Raster scan systems?

   b) How do Image scanners work?

   c) Writethe 2-D Rotation transformation matrix.

   d) Explain briefly the RGB color model.

   e) What are the different Color fill techniques?

   f) What do you mean by Perspective projection?

   g) Define the term Window and Viewport.

   h) Describe the working of Beam Penetration technique?

   i) What is the need for Homogenous coordinate system?

   j) How is Bresenhem's algorithm better than Mid-point algorithm?

SECTION-B

2. What do you mean by Clipping? Why is it needed? Write in detail about 2-D clipping with the help of an algorithm and an example.

3. What are the various techniques used in Area filling? Explain in detail.

4. Write an algorithm for Circle drawing in computer systems. How is it different/similar to the Line drawing algorithms?

5. Explain an algorithm for Line and Polygon clipping with an example.

6. What do you mean by Projections? How is Parallel projection different from Perspective projection? Where is it used?

7. Describe the various input devices used in Computer Graphics systems along with their application areas.

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.