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

Total No. of Questions : 07

BCA (2013 & Onward)   (Sem.–6)
COMPUTER GRAPHICS
Subject Code : BSBC-602
Paper ID : [A2378]

Time : 3 Hrs.   **Max. Marks : 60**

INSTRUCTION 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 a student has to attempt any FOUR questions.**

SECTION-A

1. **Answer briefly :**

   a) What are the applications of Line drawing algorithms?

   b) What is Beam Penetration method best suited for?

   c) What do you mean by Active and Passive Graphics?

   d) What do you mean by Polygon clipping?

   e) Write in brief about the working of Trackballs.

   f) What are the specifications of the any Flat-panel display used now-a-days?

   g) What do you mean by Scaling transformation? Write the matrix notation also.

   h) Write the transformation matrix for 2-D Reflection about y-axis.

   i) Write any two applications of Random scan systems.

   j) What do you mean by Cartesian and Homogenous coordinates?

SECTION-B

2. What are the various 2-D geometric transformations? Explain with the help of examples.

3. Write a note on Projections. What are the different types of Projection in computer graphics? What are those used for?

4. What are the various Display devices used in Computer graphics? Give the advantages and disadvantages of each of them.

5. What are the various Scan conversion algorithms for Line and Ellipse drawing? Write the steps in detail along with an example.

6. Write in detail about Area Filling techniques. How is it extended for Text/Character generation?

7. What do you mean by View Volume? Write an algorithm for 3-D Line and polygon Clipping. What is its use in computer graphics?