

B.C.A. Part—III (Semester—V) Examination
COMPUTER GRAPHICS
Paper—5ST4

Time : Three Hours]

[Maximum Marks : 60

Note :— (1) **ALL** questions are compulsory.

(2) All questions carry equal marks.

1. (A) Define the following terms :—

(1) Graphics

(2) Computer graphics

(3) Pixel. 6

(B) Write down the applications of Computer Graphics. 6

OR

2. (A) Explain the history of Computer Graphics. 6

(B) Explain the types of Computer Graphics. 6

3. (A) Explain the concept of 2D Rotation Transformation with example. 6

(B) Explain Homogeneous Co-ordinate System. 6

OR

4. (A) Explain CRT (Cathode Ray Tube) display system. 6

(B) Write down the Homogeneous equations matrix form of transformations. 6

5. (A) Find the points in DDA Algorithm for a straight line from point (3, 4) to (8, 6). 6

(B) Explain the concept of Orthographic Parallel Projection. 6

OR

6. (A) Explain Cohen Sutherland Line Clipping Algorithm. 6

(B) Explain Midpoint Circle Drawing Algorithm. 6

7. (A) Explain Morphing and Tweening in detail. 6

(B) Write down the types of Animation in detail. 6

OR

8. (A) Explain how Computer Graphics works with animation. 6

(B) Explain Hardware and Software Tools in detail. 6

9. (A) Write a program for scaling transformation of a line. 6

(B) Write a program to draw the circle. 6

OR

10. (A) Explain the concept of 3D translation transformation. 6

(B) Write a program to draw the Rectangle. 6