Roll No……..….. **Total No. of Printed Pages: 1**
Total No. of Questions: [09]

BCA (Semester – 6th)
COMPUTER GRAPHICS
Subject Code: BSBC602
Paper ID: [6160102]

Time: 03 Hours **Maximum Marks: 60**

Instruction for 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 **(2 marks each)**

Q1. Attempt the following:

a Define Lookup Table.
b What is the concept of 'vanishing point'?
c What is scan conversion?
d Define shearing with example.
e Explain working of Liquid Crystal Display.
f Differentiate between Refresh buffer and Frame Buffer.
g What is Flat-Panel Displays?
h Define scaling with example.
i Explain Graphics Monitors and Workstations.
j What is view reference point?

Section – B **(10 marks each)**

Q2. (a) Differentiate between raster scan and random scan.
(b) Differentiate between active and passive graphics.

Q3. Explain the working of Cohen-Sutherland line clipping algorithm with suitable example.

Q4. (a) How long would it take to load a 640× 480 frame buffer with 12 bits per pixel, if 105 bits can be transferred per second.
(b) Calculate points on line from (0,0) to (4,-8) using Bresenham line drawing algorithm.

Q5. (a) Differentiate between parallel and perspective projection.
(b) Explain in detail about 3D viewing transformation.

Q6. Explain Midpoint Circle Generating Algorithm with a suitable example.

Q7. What is a Cathode Ray Tube (CRT)? Explain the functioning of CRT with proper diagram.