

No. of Printed Pages : 03

Roll No.

E212

B.C.A. EXAMINATION, 2020

(Fifth Semester)

(B Scheme) (Main & Re-appear)

(BCA)

BCA303B

COMPUTER GRAPHICS

Time : 2½ Hours]

[Maximum Marks : 75

Before answering the question-paper candidates should ensure that they have been supplied to correct and complete question-paper. No complaint, in this regard, will be entertained after the examination.

Note : Attempt *Four* questions in all. All questions carry equal marks.

1. What do you mean by computer graphics ?
What are different computer graphics hardware and software ? Explain in detail.
2. (a) Differentiate between random scan display and flat panel display.
(b) What are functions of graphics monitor and workstation ?
3. Explain DDA algorithm in detail with suitable examples.
4. Enlighten over ellipse generating algorithms.
How does it work ?
5. Explain Sutherland-hodegeman polygon clipping algorithms.
6. Compose 2D transformation matrices with suitable example for reflection about x -axis, y -axis and $x=y$ line.

7. Derive an expression for parametric representation of Bezier curve. What is the benefit of synthetic curves over conventional analytical curves ?
8. Explain composition of 3D transformation matrix for rotation, reflection, translation and overall scaling.