

Roll No :

Total No. of Questions : 10]

[Total No. of Printed Pages : 2

BC-405

B.C.A. (Part-III) Examination, 2021

COMPUTER GRAPHICS

Paper - BCA-305

(For Due)

(For Old Scheme Students)

Time : 1½ Hours]

[Maximum Marks : 50

Note :- Attempt *five* questions in all, selecting *one* question from each Unit. All questions carry equal marks.

Unit-I

1. (a) What is Computer Graphics ?
(b) Differentiate between Random Scan and Raster Scan displays.
2. Write short notes on the following :
 - (a) GKS
 - (b) Liquid Crystal Displays

Unit-II

3. Explain DDA algorithms.
4. Explain Flood fill algorithm and compare this with Boundary fill algorithm.

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Unit-III

5. Explain different 2D transformation with an example.
6. (a) Give homogeneous matrix of translation.
(b) Find coordinates of a triangle ΔABC (A(3,4) B (3, 8) C (7, 4)) after translation ($T_x = + 2$ $T_y = +3$).

Unit-IV

7. Explain 3D transformation in detail.
8. Write brief notes on the following :
 - (a) Perspective projections
 - (b) Bézier curves

Unit-V

9. (a) Differentiate between Window and Viewport.
(b) Explain Depth Buffer algorithm with example.
10. (a) Explain viewing pipeline.
(b) Explain Sutherland Hodgement Polygon Clipping algorithm.