

Roll No.

Total No. of Pages : 02

Total No. of Questions : 08

BCA (Sem.-6)
COMPUTER GRAPHICS

Subject Code : BSBC-602

M.Code : 71211

Date of Examination : 04-08-21

Time : 2 Hrs.

Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

1. Attempt any FIVE question(s), each question carries 12 marks.

1. What do you mean by raster scan system? Explain the working of color CRT monitor.
2. What is windowing and clipping? Explain Sutherland Hodgman algorithm clipping a polygon.
3. What are projections? Explain different types of projection.
4. Indicate with raster locations would be chosen by Bresenham line algorithm when scan converting a line from pixel coordinates to pixel coordinates.
5. Find the matrix for mirror reflection with respect to the plane passing through the origin and having a normal vector whose direction is $N = I + J + K$.
6. Explain in detail various three dimensional geometric transformations along with matrices.
7.
 - a) List any four areas of applications of computer graphics.
 - b) What is scan conversion? Give suitable example.
 - c) State the concept of Vanishing point.
 - d) Give the matrix representation for 3D rotation about y axis.

8. a) What is perspective projection?
- b) What is Window to Viewport transformation?
- c) What are homogeneous coordinates?
- d) Consider a raster system the resolution of 1024×768 . What is the size of the raster needed to store 8 bits per pixel?

Note: Any student found attempting answer sheet from any other person(s), using incriminating material or involved in any wrong activity reported by evaluator shall be treated under UMC provisions.

Student found sharing the question paper(s)/answer sheet on digital media or with any other person or any organization/institution shall also be treated under UMC.

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