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BCA–17

BCA Vth Semester Examination Dec., 2023

INTERACTIVE COMPUTER GRAPHICS

Time : 2 Hours]   [**Max. Marks :** 70

Note **:–** This paper is of Seventy (70) marks divided into two (02) Sections 'A' and 'B'. Attempt the questions contained in these Sections according to the detailed instructions given there in. ***Candidates should limit their answers to the questions on the given answer sheet. No additional (B) answer sheet will be issued.***

Section–A

(Long Answer Type Questions)   2×19=38

Note **:–** Section 'A' contains Five (05) Long-answer type questions of Nineteen (19) marks each. Learners are required to answer any *two* (02) questions only.

1. Give the DDA line drawing algorithm. Explain with suitable example.

2. Describe the functionalities of Raster scan displays with suitable diagram.

3. Define computer graphics and its applications.

4. With suitable examples, explain all 3D transformations.

5. Describe the functionalities of CRT with suitable diagram.

Section–B

(Short Answer Type Questions)   4×8=32

Note :– Section 'B' contains Eight (08) Short-answer type questions of Eight (08) marks each. Learners are required to answer any *four* (04) questions only.

1. Give the introduction of a color models RGB & CMYK.

2. Explain the algorithm for drawing a circle with example.

3. Use Bresenham's line algorithm to derive decision parameter and explain in detail.

4. Write Short note on the following :

   (i)   Color table

   (ii)   Liquid crystal display

5. Explain Point and Line clipping.

K–330   (2)

6. What is the difference between boundary fill and area fill algorithms ? Explain in brief.

7. Discuss One point & Two point perspective projection in detail projection.

8. Explain the Term Animation and Principles of Animations with suitable examples.

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