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(20622)

BCA - IV Sem.

(Printed Pages 4)

Roll No. .....

18016

B.C.A. Examination, June-2022

COMPUTER GRAPHICS AND MULTIMEDIA APPLICATION

[BCA-401]

Time : Three Hours] *[Maximum Marks : 75*

Note : Attempt all the Sections as per instructions.

Section-A

(Very Short Answer Type Questions)

Note : Attempt all the five questions. Each questions carries 3 marks. Very short answer is required not exceeding 75 words.

1. What is the draw back of DDA line generation algorithm and advantage of Bresenham's line algorithm. 3
2. What is Computer Graphics? Indicate five practical applications of Computer Graphics. 3
3. What is viewing transformation? What is difference between window and view port? 3
4. What is digital video? Explain the use of digital video in developing multimedia applications. 3
5. What are the animation file formats? List the animation software's 3

Section-B

(Short Answer Types Questions)

Note : Attempt any two questions.

$2 \times 7\frac{1}{2} = 15$

6. It is desired to draw a line starting at A (3,6) and ending at B(6,2) on a graphics

monitor use generalized Bresenham's algorithm to determine the pixels that world be put ON. 7½

7. Show that this is same as coordination of matrix for 45 degree clockwise rotation followed by reflection about x axis and finally by counter clockwise rotations by 45 degree about origin. 7½

8. Explain Multimedia with suitable example. State the importance of animation in multimedia.

Section-C

(Detailed Answer Questions)

Note : Attempt any **three** questions:

3×15=45

9. Define popular video recording formats and discuss their strength and weakness for use in multimedia with its benefits and drawbacks of each type? 15

10. Explain MIDI versus Digital audio and also write the advantages and disadvantages of MIDI over digital audio. 15

11. Explain principles of animation and how we can perform animation by computer. 15

12. Write down and explain the midpoint circle drawing algorithm. Assume 10cm as the radius and co-ordinate origin as the center of the circle. 15

13. (i) Discuss on the various input techniques in detail. 15

(ii) Show a trans formation matrix for rotating an object about a specified pivot point.