

BACHELOR OF TECHNOLOGY (CBCS - 2023)
B. Tech. Sem-IV Computer Science & Engineering : WINTER: 2025
SUBJECT: COMPUTER GRAPHICS & MULTIMEDIA

Day : Monday
Date : 01/12/2025

W-29276-2025

Time : 10:00 AM-01:00 PM
Max. Marks : 60

Date:

NB :

1. Assume suitable data, if necessary.
2. Draw neat labelled diagrams WHEREVER necessary.
3. Figures to the right indicate FULL marks for the question.
4. All questions are COMPULSORY.

- Q. 1 Describe shadow mask method used in color CRT? Suppose we have a video monitor with display area that measures 12 inches across and 9.6 inch high. If resolution is 1280 by 1024 and the aspect ratio is 1, what is the diameter of each screen point? (10)
- OR
- Q. 1 List the advantages of Bresenham's line drawing algorithm. Bresenham's line drawing algorithm is considered as most efficient algorithm when compare with DDA line drawing algorithm. State the reason and justify it. (10)
- Q. 2 What are fractals? Explain Koch curve in detail. (10)
- OR
- Q. 2 Write short note on character generation methods. (10)
- Q. 3 How the rotation of an object about the pivot point is performed? explain with example. (10)
- OR
- Q. 3 Explain Cohen-Sutherland line clipping algorithm. (10)
- Q. 4 Explain Parallel projection & Perspective projection. (10)
- OR
- Q. 4 Describe rotation in 3D transformation. Derive transformation matrix for rotating any object about an axis passing through the origin and point(10,0,10). (10)
- Q. 5 In a document imaging system, where would you compress the image in the scanner node, in host system, or in the storage node? Examine the implications of where compression and decompression take place in a document imaging system. (10)
- OR
- Q. 5 Write a short note on compression and decompression techniques of multimedia files. List different video compression techniques. (10)
- Q. 6 How would you address the requirements for dynamic customization of display resolution to suit the destination system on which an object is being rendered? What happens if the resolution of the display device is higher than the resolution of the stored object. (10)
- OR
- Q. 6 Describe the types of multimedia authoring system and list the main attribute, benefits and drawbacks of authoring systems. (10)

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