

BACHELOR OF TECHNOLOGY (CBCS) (2021-COURSE)
B. Tech. Sem - IV Computer Science & Engineering : SUMMER : 2025
SUBJECT: COMPUTER GRAPHICS & MULTIMEDIA

Day : Thursday
Date : 29/05/2025

S-25583-2025

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

N.B.:

- 1) All questions are **COMPULSORY**.
- 2) Figures to the right indicate **FULL** marks.
- 3) Assumable suitable data **WHEREER** necessary.
- 4) Draw neat labelled diagram **WHEREVER** necessary.

Q.1 Describe the steps in DDA line drawing Algorithm create line from (10, 12) (10)
to (15, 15) on the raster scan using Bresenhams straight line Algorithm.

OR

Q.1 Define Raster scan system? What are their characteristics? How these (10)
systems are different from random scan system? Illustrate.

Q.2 Define 2D transformation? Final out new coordinates of the triangle A (1,1), (10)
B(4,3), C(0,1) after it has been magnified to double its size.

OR

Q.2 Describe the Sutherland Hodgeman polygon dipping algorithm with suitable (10)
example.

Q.3 Define the necessity of 3D clipping algorithm. Also explain midpoint (10)
subdivision for 3D dipping.

OR

Q.3 Describe and illustrate 3D display method with example. Also describe (10)
Blobby objects with suitable example.

Q.4 Describe in detail halftone pattern and dithering technique in detail. (10)

OR

Q.4 Describe different light source models with illustration. Also write short note (10)
on diffuse Reflection and speculum reflection.

Q.5 Derive the issues involved in multimedia storage and reterival. (10)

OR

Q.5 Discuss the types of compression available in multimedia. Explain two types (10)
of compression technology.

Q.6 Illustrate about multimedia system. Explain the various types of database (10)
replication techniques used in handling very large distributed database.

OR

Q.6 How video conferencing related to hypermedia messaging? What are the (10)
implication of building a system where the user starts with video
conferencing and switches to integrated storage messaging?

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