



K. K. Wagh Institute of Engineering Education & Research, Nashik
(An Autonomous Institute From A.Y. 2022-23)

InSem Examination-II Summer 2025	
Exam Seat No.:	
Academic Year: 2024-2025	Semester: IV
Class: SY IT	Program: B.Tech
Branch Code: INT	Pattern: 2023
Name of Course: Computer Graphics	Course Code: 2308213
Max. Marks: 30	Duration: 1.15 Hrs.

Instructions: Candidates should read carefully the instructions printed on the Question Paper and on the cover page of the Answer Book, which is provided for their use.

1. This question paper contains two page(s).
2. Answer to each new question is to be started on a new page.
3. Assume suitable data wherever required, but justify it.
4. Draw the neat labelled diagrams, wherever necessary.
5. The last columns indicates the Course Outcome and level of Blooms Taxonomy of the Question/sub-question.

Marks CO

Question No. 1

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|---|-----|----------|
| 1 a) Describe Raster Scan Display Method. | (3) | CO1, CO6 |
| 1 b) Explain OpenGL interface in Computer Graphics. | (4) | CO1, CO6 |

Question No. 2

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|--|-----|----------|
| 2 a) Describe the concept Pixel in Computer Graphics. | (4) | CO1, CO6 |
| 2 b) Calculate the points between the starting coordinates (1, 1) and ending coordinates (8, 7) using DDA Line generation Algorithm. | (4) | CO1, CO6 |

Group OR

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|---|-----|----------|
| 2 c) Describe Anti-Aliasing Methods in Computer Graphics. | (4) | CO1, CO6 |
| 2 d) Calculate the points between the starting coordinates (20, 10) and ending coordinates (30, 18) using Bresenham's Line Drawing Algorithm. | (4) | CO1, CO6 |

Question No. 3

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|--|-----|-----|
| 3 a) Describe Translation in 3D transformation with example. | (3) | CO4 |
| 3 b) Brief Translation and Scaling in 2D transformation. | (4) | CO4 |

Question No. 4

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|--|-----|-----|
| 4 a) Explain Flood Fill Algorithm and Boundary Fill Algorithm. | (4) | CO4 |
| 4 b) Describe Winding number Method for Inside & Outside Test of a Polygon with example. | (4) | CO4 |

Group OR

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|--|-----|-----|
| 4 c) Explain Perspective Projections in Computer Graphics. | (4) | CO4 |
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4 d) Discuss Shearing in 2D transformation with example.

(4) CO4

..... End of question paper.....