



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

	InSem Examination-IISummer2024		
	Exam Seat No.:		
	Academic Year:2023-2024	Semester: IV	
	Name of Programme: S.Y. B.Tech IT	Pattern:2022	
	Name of Course: Computer Graphics	Course Code:INT222014	
	Max. Marks:30	Duration:1 Hour	

	<p><b>Instructions:</b> 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.</p> <ol style="list-style-type: none"><li>1. This question paper contains TWO pages.</li><li>2. Answer to each new question is to be started on a new page.</li><li>3. Assume suitable data wherever required, but justify it.</li><li>4. Draw the neat labelled diagrams, wherever necessary.</li><li>5. The last columns indicates the Course Outcome and level of Blooms Taxonomy of the Question/sub-question.</li></ol>	
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**Question No. 1 Attempt following Question**

- a) Enlist the application of Computer Graphics. (5) CO1

**OR**

- b) Describe the concept Pixel in Computer Graphics. (5) CO1

- c) Calculate the points between the starting coordinates (9, 18) and ending coordinates (14, 22) using Bresenham's Line Drawing Algorithm. (5) CO6

**OR**

- d) Calculate the points between the starting coordinates (1, 1) and ending coordinates (8, 7) using DDA Line generation Algorithm. (5) CO6

- e) Describe Raster Scan Display Method. (5) CO1

**OR**

- f) Describe Random Scan Display Method (5) CO1

**Question No. 2 Attempt following Question**

- a) Describe Even Odd method for Inside & Outside Test of a Polygon with example. (5) CO2

**OR**

- b) Describe Winding number Method for Inside & Outside Test of a Polygon with example. (5) CO2

- c) Explain Flood Fill Algorithm and Boundary Fill Algorithm. (5) CO2

**OR**

d) Explain Parallel Projections in Computer Graphics. (5) CO2

e) Brief Translation and Scaling in 2D transformation. (5) CO2

**OR**

f) Discuss Shearing in 2D transformation with example. (5) CO2

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