2192046

Mid Semester Examination

Name of the Program: BCA

Semester: V I

Course Code: TBC601

Name of the Course: Computer Graphics

Time: 1-1/2 Hour

Maximum Marks: 50

Note:

(i) Answer **all the questions** by choosing ***any one of the sub questions***.
(ii) Each question carries 10 marks

Q1	(10 marks)	**CO1**
(a)	Define persistence, resolution, retracing and aspect ratio.	
	OR	
(b)	What is the difference between DDA and Bresenham's line generation algorithm?	
Q2	(10 marks)	**CO1**
(a)	Digitize a line from (10,12) to (15,15) on a raster screen using Bresenham's straight line algorithm.	
	OR	
(b)	Explain about Random and Raster scan systems.	
Q3	(10 marks)	CO2
(a)	Explain the Delta-Delta Shadow masking and Beam penetration method of colored system.	
	OR	
(b)	(i) Find the refresh rate of a 512X512 frame buffer, if the access time for each pixel is 200 nanoseconds. (ii) Find the amount of memory required by an 8-plane frame buffer each of red, green and blue, having 1024X768 resolution.	
Q4	(10 marks)	CO2
(a)	What is the need of lookup table? Give the organization of a color look up table providing 12 bits per entry, per color for pixel position and with 8 bits per pixel in the frame buffer.	
	OR	
(b)	Compare DVST and refresh display. List the properties of phosphor used in CRT monitors.	
Q5	(10 marks)	**CO3**
(a)	What do you mean by a vector? What are the properties of a vector? How do we perform the mathematical operations using vector? Explain it through proper example.	
	OR	
(b)	Explain the properties and working process of following display devices: Plasma panels, LCD and Plotter	