

# Government Science College, Valod

Third Year B.Sc. (Computer Science) Semester – IV

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## Computer Graphics Assignment of Unit-1

	<b>Assignment Questions</b>
1.	What do you mean by Computer Graphics?
2.	What is Image Processing? What is difference between Computer Graphics and Image Processing?
3.	What are Graphics tablets?
4.	Write Short notes on <ol style="list-style-type: none"><li>1. Information Visualization and Processing</li><li>2. Application of Computer Graphics in Biometrics</li></ol>
5.	What are Pixel Graphics and Vector Graphics?
6.	Why the size of bitmap file is large?
7.	What do you understand hard copy graphics devices? What are the advantages of soft copy display devices over hard copy devices?
8.	List the various hard copy display devices and also comment on their merits and limitations.
9.	Explain how inkjet printer works.
10.	Explain the printing procedure in laser printer.
11.	Name the parameters used to measure the performance of a display device. Define each of them.
12.	Define Image. Explain the representation and storage of a digital image.
13.	Compare and Contrast Bitmap and Vector Images.
14.	List and Explain applications of Computer Graphics.
15.	Describe the Components of a typical computer graphics display system. Explain the construction and working of CRT displays.
16.	State the Characteristics of raster and random scan displays.
17.	Explain the working and composition of a typical plasma display systems.
18.	Describe the working principle of LCD displays. What are their advantages over CRT displays> What are their applications?
19.	What is refresh buffer? Identify the contents and organization of a refresh buffer fir the case of a raster and vector display.
20.	Write a short note on Computer Graphics Applications.
21.	Illustrate the structure of plasma display panels. State the advantages and disadvantages.

	<b>University Exam Questions</b>
	<b>Answer in Short: [ 2 Marks Each ]</b>
1.	(a) Explain difference between graphics and animation.
2.	(b) What is the use of drawing and painting devices ?
3.	(c) What is the use of frame buffer ?
4.	(e) What is aspect ratio ?
5.	(f) What do you mean by image processing ?

6.	(a) Mention the raster functions that are used in graphical packages.	
7.	(d) Explain about touch panel and light pen.	
8.	(e) What are the various applications of computer graphics?	
9.	(f) List the important characteristics of hardcopy devices.	
10.	(1) What is Graphics Standard ? Name any two graphics standard.	
11.	(6) What are the different types of Light sources ? How do they affect the visibility of any object ?	
12.	(7) Explain use of Simulation in computer graphics.	
13.	(1) What is image processing ?	
14.	(2) What do you mean by digital image ?	
15.	(3) What is virtual reality and visualization ?	
16.	(4) Explain use of simulation in computer graphics.	
17.	(5) How trigonometry can be helpful in computer graphics ?	
18.	a) Explain working of video buffer.	
19.	b) Define frame buffer.	
20.	c) What do you mean by resolution?	
21.	f) Define computer graphics.	
Answer in Details: [ 7 Marks Each]		
1.	How Raster scan display devices are different from Random scan display devices ? Can we use frame buffers to control picture color and intensity, justify your answer with suitable arguments.	
2.	Explain the term anti-aliasing. How does the technique of anti aliasing work to get rid of the problem of aliasing ?	
3.	Explain the working principle of plasma panel displays. Also give its advantages and disadvantages.	
4.	Explain applications of computer graphics in different fields.	
5.	Explain Random scan and Raster scan display.	7
6.	Explain the problem of Aliasing.	7
7.	(1) Explain any two popular software used in computer graphics.	

8.	What do you understand by aliasing effect ?
9.	Explain use of matrix algebra in computer graphics.
10.	Explain light sources and illumination in computer graphics.
11.	b) Explain raster and random scan display.
12.	Differentiate between Bitmap graphics and vector graphics.
13.	Explain aliasing and anti aliasing by taking suitable example.
14.	Explain different applications of computer graphics.
15.	Explain use of homogeneous coordinates and cartesian coordinates in computer graphics.

Reference Book:

1. Computer Graphics by Apurva Desai, PHI Publication
2. Computer Graphics by Rajesh K. Maurya, Wiley India
3. Computer Graphics by Amrendra N Sinha and Arun D Udai, TMH
4. Computer Graphics ( C version ) by Donald Hearn & M. Paulin Bekar