BTS – VI- (S) – 06 – 014 (D)

B. Tech Degree VI Semester (Supplementary) Examination June 2006

CS 602 COMPUTER GRAPHICS

(Prior to 1998 Admissions)

Time : 3 Hours Maximum Marks : 100

I.	(a)	With the help of a neat diagram explain the working of CRT monitor.	(15)
	(b)	Explain DDA line drawing algorithm.	(10)
		OR	
II.	(a)	Explain Bresemham line drawing algorithm with a suitable example.	(10)
	(b)	Explain different applications of computer graphics.	(10)
	(c)	What are the advantages of segmentation of display files?	(5)
III.	(a)	What is homogenous coordinate system? Explain the use of homogeneous coordinate system in computer graphics.	(5)
	(b)	A triangle $P(10,40)$, $Q(40,40)$, $R(40,30)$. Find out the transformation matrix which would rotate the triangle by 90 degree in counter clock wise direction. Find the coordinates of the rotated triangle.	(10)
	(c)	Explain Cohen Sutherland line clipping algorithm.	(10)
		OR	
IV.	(a)	Explain Sutherland-Lodgemen polygon clipping algorithm.	(10)
	(b)	Explain different functions for segmenting the display file.	(7)
	(c)	Explain the working of any one of the graphical input device in detail.	(8)
V.	(a)	Explain different techniques for achieving realism in three dimensional computer graphics.	(10)
	(b)	Find out the transformation matrix for 3D rotation about X-axis, Y-axis and Z-axis	(15)
		OR	
VI.	(a)	Explain Phong's polygon shading algorithm.	(10)
	(b)	Differentiate between object-space and image-space methods for hidden surface elimination.	(5)
	(c)	Explain Depth-Buffar algorithm for hidden surface elimination.	(10)
VII.	(a)	With the help o a neat sketch explain simple refresh line-chaining display system.	(15)
	(b)	Explain different components of the graphical user interface.	(10)
		OR	
VIII.	(a)	Explain different command language design issues.	(10)
	(b)	Explain different issues in Graphics System Design and Function Set Design in device independent computer graphics.	(15)

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