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21AI644

Sixth Semester B.E./B.Tech. Degree Examination, Dec.2024/Jan.2025 **Computer Graphics and Fundamentals of Image Processing**

Time: 3 hrs

A Max. Marks: 100

	Time: 3 hrs.		3 hrs.	Max. Marks: 100	
		Λ	ote: Answer any FIVE full questions, choosing ONE full question from ea	ch module	
ng your answers, compulsorily draw diagonal cross lines on the remaining blank pages. g of identification, appeal to evaluator and /or equations written eg, $42+8=50$, will be treated as malpractice.		11	one. Answer any TTV L jun questions, choosing OTIL jun question from ea	en mounte.	
lprac			Module-1		
ma	1	a.	Define computer graphics. Explain basic applications of computer graphics	. (10 Marks)	
d as		b.	Outline electrostatic deflection of the electron beam in a CRT.	(10 Marks)	
eate					
es. oe tr			OR		
pag ⁄ill l	2	a.	Explain Raster Scan display with neat diagram.	(10 Marks)	
ank 0, w		b.	Demonstrate DDA Algorithm with different cases.	(10 Marks)	
g bl = 5			Madelle		
inin 2+8	3	•	Module-2 Construct two dimensional geometric translation and rotation equation.	(10 Marks)	
ema 2g, 4	3	a. b.	Demonstrate three dimensional coordinate axis rotation.	(10 Marks)	
he r		υ.	Demonstrate times dimensional coordinate axis rotation.	(10 1/14/115)	
on t vritt			OR		
nes	4	a.	Summarize functions for two dimensional geometric transformations.	(10 Marks)	
ss li aatic		b.	Outline OpenGL Geometric Transformation functions.	(10 Marks)	
cro equ					
onal d /o			Module-3		
liag r an	5	a.	Summarize logical classification of input devices.	(10 Marks)	
aw c		b.	Explain OpenGL menu functions.	(10 Marks)	
y dr					
to e	_	_	Organize different interactive picture construction technique.	(10 Marks)	
puls	6	a. b.	Identify development stages for design of animation sequences.	(10 Marks)	
com		υ.	identify development stages for design of animation sequences.	(10 Marks)	
ers, etion			Module-4		
ing your answers, compulsorily draw diagonal cross lines on the remaining blank pages. In soft identification, appeal to evaluator and /or equations written eg, $42+8=50$, will be	7	a.	Outline image processing and related fields.	(10 Marks)	
ur aı Jent		b.	Explain image processing Airthmetic operations.	(10 Marks)	
of io		Co			
eting ling		10	OR		
mpl	8	a.	Briefly classify different types of images.	(10 Marks)	
n co ny re		b.	Write important characteristics of images.	(10 Marks)	
. Ar			Module-5		
: 2 2	9	0	Rephrase formal definition of image segmentation.	(06 Marks)	
Not	9	a. b.	Summarize characteristics of the segmentation process.	(07 Marks)	
ant		c.	Explain canny-edge detection algorithm.	(07 Marks)	
Important Note: 1. On completi 2. Any revealin		٠.			
Im			OR OR		

b.	Summarize characteristics of the segmentation process.	(U/ Marks)
c.	Explain canny-edge detection algorithm.	(07 Marks)

		OK .	
10	a.	Classify image segmentation algorithm.	(10 Marks)
	b.	Demonstrate different stages in edge detection.	(10 Marks)