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Reg. No. : | | | | | | | | | | |

Question Paper Code: 55803

B.E. / B.Tech. DEGREE EXAMINATION, APRIL 2019

Fifth Semester

Computer Science and Engineering

15UIT503 -GRAPHICS AND MULTIMEDIA

(Common to Information Technology)

(Regulation 2015)

Duration: Three hours | Maximum: 100 Marks

Answer ALL Questions

PART A - (5 x 1 = 5 Marks)

1. In 2D-translation, a point (x, y) can move to the new position (x', y') by using the equation CO1-R

   (a) x'=x+dx and y'=y+dx (b) x'=x+dx and y'=y+dy

   (c) X'=x+dy and Y'=y+dx (d) X'=x-dx and y'=y-dy

2. There are 2 types of polygons. They are? CO2-R

   (a) Square and rectangle (b) Convex and concave

   (c) Octagon and convex (d) Hexagon and square

3. RGB true color model has _____ color depth CO3-R

   (a) 24 Bit (b) 32 Bit (c) 64 Bit (d) None

4. The smallest addressable screen element is called? CO4-R

   (a) Pixel (b) Voltage level (c) Color information (d) Graph

5. HMD stands for? CO5-R

   (a) Head Mounted Display (b) Head Masked Display

   (c) Head Made Display (d)Head Mounted Detection

PART – B (5 x 3= 15Marks)

6. Define Affine transformation? CO1-App

7.		What are the different ways of specifying spline curve?	CO2- U	
8.		What is texture?	CO3-App	
9.		List some Major Steps For Jpeg Compression?	CO4-R	
10.		List the applications of multimedia communication systems?	CO5-R	

PART – C (5 x 16= 80Marks)

11.	(a)	Demonstrate Bresenham's Line Drawing Algorithm. Illustrate the steps required to plot a line whose slope is between 45 and 90 degree using Bresenham's method?	CO1-Ana	(16)
		Or		
	(b)	Derive transformation matrix for 2D Rotation with respect to origin and with respect to pivot point.	CO1-App	(16)
12.	(a)	What is meant by 3D viewing coordinate? Sketch with neat diagram the dealings of projections with necessary equations?.	CO2-Ana	(16)
		Or		
	(b)	Explain the following visible surface detection methods. Depth-Buffer method, A - Buffer method and Back face detection.	CO2- U	(16)
13.	(a)	Compare and contrast between RGB and CMY color models.	CO3-U	(16)
		Or		
	(b)	Compare and contrast the different types of shading?	CO3-App	(16)
14.	(a)	Describe in detail about Media and data Streams.	CO4-U	(16)
		Or		
	(b)	Compare the different JPEG Compression?	CO4 -U	(16)
15.	(a)	Explain Multimedia Database system in detail?	CO5-U	(16)
		Or		
	(b)	Explain in Brief (i) Video Conferencing (ii) Virtual Reality	CO5-U	(16)