C **Reg. No. :** | | | | | | | | | | |

Question Paper Code: 55803

B.E. / B.Tech. DEGREE EXAMINATION, APRIL 2023

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. The translation distances (dx, dy) is called as CO1- R

   (a) Translation vector (b) Shift vector (c) Both a and b (d) Neither a nor b

2. The most basic transformation that are applied in three-dimensional planes are CO2- R

   (a) Translation (b) Scaling (c) Rotation (d) All of these

3. The color code "000" is for CO3- R

   (a) White (b) Black (c) Blue (d) Green

4. MIDI stands for CO4- R

   (a) Musical Instrument Digital Interface (b) Musical Instrument Design Interface

   (c) Musical Instrument Digital Instruction (d) MP3 Instrument Digital Interface

5. A video consists of a sequence of CO5- R

   (a) Frames (b) Signals (c) Packets (d) Slots

PART – B (5 x 3= 15Marks)

6. Write down the shear transformation matrix. CO1 R

7. Differentiate between interpolation spline and approximation spline. CO2 R

8. How will you convert from YIQ to RGB color model? CO3 R

9.		Write short notes on medium and traditional data streams.	CO4 R	
10.		Define the term multimedia communication. State the basic form of representing different media.	CO5 R	

PART – C (5 x 16= 80 Marks)

11.	(a)	Explain in detail on two dimensional geometric transformations with suitable examples.	CO1- U	(16)
		Or		
	(b)	Illustrate in detail the cohen sutherland line clipping algorithm with suitable examples.	CO1- U	(16)
12.	(a)	With suitable examples, explain all 3D transformations.	CO2- U	(16)
		Or		
	(b)	Discuss the various surface detection methods in detail.	CO2- U	(16)
13.	(a)	Write informative notes on RGB and HSV color models.	CO3- U	(16)
		Or		
	(b)	Elaborate in detail about the various shading models with relevant sketch.	CO3- U	(16)
14.	(a)	Elucidate MIDI Messages and devices in detail.	CO4- U	(16)
		Or		
	(b)	Describe in detail JPEG compression technique with neat diagrams.	CO4- U	(16)
15.	(a)	Discuss optical storage systems providing informative points.	CO5- U	(16)
		Or		
	(b)	Elaborate video conferencing with suitable architecture diagram.	CO5- U	(16)