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

Question Paper Code:U5201

B.E./B.Tech. DEGREE EXAMINATION, NOV 2025

Fifth Semester

Computer Science Engineering

21UCS501-GRAPHICS AND MULTIMEDIA

(Regulation 2021)

Duration: Three hours | Maximum: 100 Marks

PART A - (10 x 2 = 20 Marks)

1.	What is an output primitive?	CO1-U
2.	Define clipping and explain any Two types of Clipping.	CO1-U
3.	Derive the matrix for pivot point rotation.	CO1-U
4.	Show that reflection is equivalent to 180 ^{o} rotation.	CO1-U
5.	Define Quadratic Surface.	CO1-U
6.	How do you represent sphere in three dimensions?	CO1-U
7.	What do you mean by Color Model?	CO1-U
8.	What is Polygon shading?	CO1-U
9.	Define multimedia.	CO1-U
10.	Define MIDI.	CO1-U

PART – B (5 x 16= 80Marks)

11.	(a)	Use and explain the Bresenham's line algorithm to digitize the line with end points (35,40) & (43,45).	CO2-App	(16)
		Or		
	(b)	Use and explain the DDA line algorithm to digitize the line with end points (2,3) & (12,8).	CO2-App	(16)
12.	(a)	Explain Cohen-Sutherland line clipping algorithm.	CO1-U	(16)
		Or		
	(b)	Explain the transformation in 2D with the matrix representations for Translation, Scaling and Rotation Give suitable diagram for illustration.	CO1-U	(16)

13.	(a)	Describe in detail about 3D object representations.	CO1-U	(16)
		Or		
	(b)	List the properties of the Bezier Curve and also explain Bezier techniques of generating curves.	CO1-U	(16)
14.	(a)	Explain shading models in detail.	CO1-U	(16)
		Or		
	(b)	Illustrate the basic color models in detail.	CO1-U	(16)
15.	(a)	Explain the concepts of images and graphics.	CO1-U	(16)
		Or		
	(b)	Explain in detail about various compression technique in detail.	CO1-U	(16)