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

Question Paper Code: 55803

B.E. / B.Tech. DEGREE EXAMINATION, MAY 2018

Fifth Semester

Information Technology

15UIT503 - GRAPHICS AND MULTIMEDIA

(Regulation 2015)

Duration: Three hours Maximum: 100 Marks

PART A - (5 x 1 = 5 Marks)

1. The original coordinates of the point in polor coordinates are CO1- R

(a) X'=r cos (Φ +Θ) and Y'=r cos (Φ +Θ) (b) X'=r cos (Φ +Θ) and Y'=r sin (Φ +Θ)

(c) X'=r cos (Φ -Θ) and Y'=r cos (Φ -Θ) (d) X'=r cos (Φ +Θ) and Y'=r sin (Φ -Θ)

2. Which transformation alters the size of object? CO2- R

(a) Shear (b) Translation

(c) Scaling (d) Rotation

3. White color in a Cartesian coordinate system can be represented as CO3- R

(a) (0,1,1) (b) (0,1,0) (c) (0,1,1) (d) . (1,1,1)

4. In Joint Photographic Experts Group (JPEG), a gray scale picture is divided into blocks of CO4 -R

(a) 5 X 5 pixels (b) 6 X 6 pixels (c) 7 X 7 pixels (d) 8 X 8 pixels

5. Which one is to define the form and content of messages exchanged between nodes? CO5 -R

(a) Network layer (b) Protocol (c) Extended Networks (d) Caching

PART - B (5 x 3 = 15 Marks)

6. What is transformation? Briefly explain Two dimensional scaling. CO1 -R

7. Draw three Dimensional viewing pipeline and explain. CO2- R

8. What are fractals? Explain self similarity fractals in detail. CO3- R

9. Define animation. Write short notes on key frame animation. CO4- R

10. Write briefly about dedicated function Boards. CO5 -R

PART – C (5 x 16= 80Marks)

11. (a) Explain Bresenham's Line Drawing Algorithm for the center: (20, 10) and (30, 18). CO1 -App (16)

Or

(b) (i) Write short notes on line attributes. CO1- App (4)

(ii) Discuss about Cohen Sutherland line clipping algorithm. CO1 -App (12

12. (a) Explain different types of Three dimensional transformations with necessary diagrams and examples. CO2 -App (16)

Or

(b) Explain Polygon surface and Quadratic surface representations with neat sketches. CO2 -Ana (16)

13. (a) Compare and Contrast the following color models in detail. CO3- Ana (16)
a)RGB, b)YIQ, c) CMY, d) HSV

Or

(b) Explain the following CO3 -Ana (16)
(i) Smooth and flat shading
(ii) Adding Texture to faces

14.	(a)	Define MIDI. List its attribute. Compare and contrast the use of MIDI and digitized audio in multimedia production.	CO4 -U	(16)
		Or		
	(b)	Explain about JPEG compression.	CO4 -Ana	(16)
15.	(a)	Explain WORM optical drive in detail with necessary diagrams	CO5- U	(16)
		Or		
	(b)	Explain the principle of video conferencing in detail.	CO5- U	(16)