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**Question Paper Code: 55803**

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