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Question Paper Code: 55803

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

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 two-dimensional rotation equation in the matrix form is CO1-R
(a) $P' = P + T$ (b) $P' = R * P$ (c) $P' = P * P$ (d) $P' = R + P$
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. Fractals deal with curves that are? CO3-R
(a) Regularly irregular (b) Irregularly irregular
(c) Regularly regular (d) Irregularly regular
4. The smallest addressable screen element is called? CO4-R
(a) Pixel (b) Voltage level (c) Color information (d) Graph
5. A video consists of a sequence of CO5-R
(a) Frames (b) Signals (c) Packets (d) Slots

PART – B (5 x 3= 15Marks)

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| 6. Illustrate General Pivot-Point Rotation. | CO1-App |
| 7. Summarize Quadric surface. | CO2- U |
| 8. Show the animation sequence steps. | CO3-App |
| 9. List some Major Steps For Jpeg Compression? | CO4-R |
| 10. What are the applications of multimedia? | CO5-R |

PART – C (5 x 16= 80Marks)

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| 11. (a) Design a Bresenham's line drawing algorithm and trace the Algorithm for the $ m < 1$. Also List the advantages of Bresenham's algorithm over DDA algorithm. | CO1-Ana | (16) |
| Or | | |
| (b) Describe about Cohen-Sutherland line clipping algorithm with an example. | CO1-App | (16) |
| 12. (a) Compose the different types of data with the techniques of Visualization applied over the data. | 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) Develop the different methods of motion specifications with Suitable example. | CO3-App | (16) |
| 14. (a) Describe in detail about Media and data Streams. | CO4-U | (16) |
| Or | | |
| (b) Explain the MIDI Concepts in details. | CO4 -U | (16) |
| 15. (a) Discuss about the Multimedia Database System. | CO5-U | (16) |
| Or | | |
| (b) Summarize Virtual Reality Design. | CO5-U | (16) |