R13

Code: 13A12401

B.Tech II Year II Semester (R13) Supplementary Examinations December/January 2015/2016
COMPUTER GRAPHICS & MULTIMEDIA
(Information Technology)

Time: 3 hours   Max. Marks: 70

PART – A
(Compulsory Question)
*****

1   Answer the following: (10 X 02 = 20 Marks)
(a)   Define Random Scan/Raster Scan displays.
(b)   What do you mean by retracing? Define horizontal as well as vertical retracing.
(c)   Define shadow masking.
(d)   What are the steps involved in 3D transformation?
(e)   What are the important properties of Bezier curve?
(f)   What are the different ways of specifying spline curve?
(g)   Write about different Audio file formats.
(h)   What are advantages of DVST over CRT? Also list some disadvantages of DVST.
(i)   Write about Illumination & shading.
(j)   What do you mean by scan conversion?

PART – B
(Answer all five units, 5 X 10 = 50 Marks)

UNIT – I

2   (a)   Write about Computer Aided Design.
(b)   Briefly describe Image Processing.

OR

3   Write in detail about Raster Scan Systems.

UNIT – II

4   (a)   What is meant by composite transformations?
(b)   Enumerate the differences between 2D-graphics and 3D-graphics.

OR

5   Use the Cohen Sutherland algorithm to clip line P_1 (70, 20) and P_2 (100, 10) against a window lower left hand corner (50, 10) and upper right hand corner (80, 0).

UNIT – III

6   What are parametric cubic curves? Explain them with example.

OR

7   Explain about the rendering techniques for shaded images in detail.

UNIT – IV

8   (a)   Illustrate the key differences between flat shading, gouraud shading and phong shading of polygons.
(b)   Describe the technique of color interpolation shading. How does it differ from Phong shading?

OR

9   Describe the Z-buffer algorithm. For what type of scenes Z-buffer does not perform well. What effects are difficult to implement with Z-buffer? Explain why large difference between the far and near distances in the projection transformation will have a negative effect on Z-buffer performance.

UNIT – V

10 (a)   Write the differences between MIDI and Digital Audio.
(b)   Write about digital video containers.

OR

11   Explain in detail about making Still Images.

*****