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<b>6E 6024</b>	
B.Tech VI Semester ( Main/ Back ) Examination, May-June 2015	
Computer Science	
<b>6CS4A Computer Graphics and Multimedia Techniques</b>	
<b>6E 6024</b>	

Time : 3 Hours  
Maximum Marks : 80  
Min. Passing Marks : 24

**Instructions to Candidates:**

*Attempt any Five questions, selecting one question from each unit. All questions carry equal marks. (Schematic diagrams must be shown wherever necessary. any data you feel missing suitably be assumed and stated clearly.) Units of quantities used/ calculated must be stated clearly.*

**UNIT - I**

1. a) What is scan conversion ? Explain Raster Scan system with the help of Block diagram? (8)  
b) Explain Basic principle to draw a circle also Explain mid-point circle Algorithm? (8)

**(OR)**

1. a) Write short note on : Anti aliasing technique? (8)  
b) Explain the interactive picture construction technique? (8)

**UNIT - II**

2. a) Explain Cohen-Sutherland line clipping Algorithm with region code details? (8)  
b) What do you mean by homogeneous co-ordinates? How these co-ordinates are useful in transformation? (8)

6E 6024/2015 (1) [Contd....]



UNIT - V

5. a) What are Multimedia authoring tools? (8)  
b) Explain the different types of data compression technology? (8)

(OR)

5. Write a short Note on : (8×2=16)  
i) Animation techniques  
ii) Architectural and telecommunication considerations.

(OR)

2. a) What is the difference between scaling and Rotation? (8)  
b) Write down flood fill Algorithm for Area filling? (8)

UNIT - III

3. a) Explain Depth-Buffer Algorithm to display visible surfaces of polygen? (8)  
b) Short - Note on : (4×2=8)  
i) B-Spline curves  
ii) Bezier Curve

(OR)

3. a) Explain Scan line Algorithm? (8)  
b) What is perspective representation? Explain various types of perspective projection? (8)

UNIT - IV

4. a) Write a short Note on the following (4×3=12)  
i) Gaurand shading  
ii) Phong shading  
iii) Ray - Tracing Algorithm  
b) Discuss about the difference between CMY and RGB color? (4)

(OR)

4. What are diffused and specular reflection? and write down the illumination model that incorporates both these reflections explain all the variables used in this model? (16)