



Reg. No. : .....

Name : .....

**Sixth Semester B.Tech. Degree Examination, May 2011  
(2008 Scheme)**

**Branch : Information Technology  
08.605 – COMPUTER GRAPHICS (F)**

Time: 3 Hours

Max. Marks: 100

**PART – A**

Answer **all** questions.

1. Explain Raster Scan display system.
2. Explain DDA Algorithm.
3. What is rigid body transformation ?
4. Explain the purpose of a display processor.
5. Show the composition of 2 transformations is additive.
6. Derive the window to viewport co-ordinate transformation.
7. Explain parallel projection.
8. How is A-Buffer method used for Backface detection ?
9. Describe carry edge detector.
10. Explain the algorithm used for region labelling.

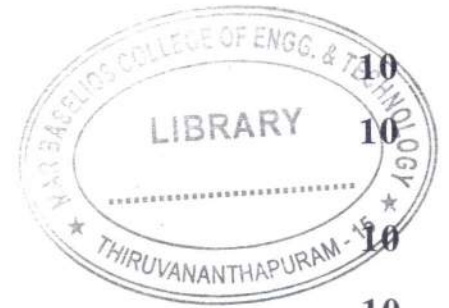
**(10×4=40 Marks)**

**PART – B**

Answer **any one** question from **each** Module.

**Module – I**

11. a) Explain the midpoint circle generating algorithm.  
b) Compare raster and random scan systems.  
OR
12. a) Explain scanline polygon fill area algorithm.  
b) Compare boundary and flood fill algorithm.



**10  
P.T.O.**

**Module – II**

13. a) Explain the Cohen Sutherland line clipping algorithm. **12**
- b) Explain the steps of transforming a 3D object about an axis that is parallel to one of the co-ordinate axes. **8**

OR

14. a) Derive the window to viewport transformation equation by first scaling the window to the size of viewport and then translating the scaled window to the viewport position. **10**
- b) Changing the order in which a sequence of transformation is applied may affect the transformed position of the object. Illustrate with an example. **10**

**Module – III**

15. a) Explain any two surface rendering methods. **10**
- b) Discuss image segmentation and labelling techniques. **10**

OR

16. a) Explain the scanline method for removing hidden surface. **10**
- b) Explain the Depth Buffer method for visible surface detection. **10**
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