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1509

Reg. No. :

Name :

Sixth Semester B.Tech. Degree Examination, May 2012
(2008 Scheme)
Branch : Information Technology
08.605 COMPUTER GRAPHICS (F)

Time : 3 Hours

Max. Marks : 100

PART – A

(10×4=40 Marks)

Answer **all** questions. Each question carries **four** marks.

1. What is scan conversion ?
2. Name any two graphic input devices and explain their function.
3. Define aspect ratio of video monitors.
4. Define refresh buffer.
5. What is antialiasing ? Explain.
6. What do you mean by a composite transformation ?
7. Derive the intersection point of a line with a clipping boundary.
8. What is stereoscopic view ?
9. Define histogram equalization.
10. What is meant by back face detection ?



P.T.O.



PART – B

(20×3 = 60 Marks)

Answer **one** full question from **each** Module. Each question carries **20** Marks.

Module – I

11. a) Implement the polyline algorithm using Bresenham's line drawing algorithm, given the co-ordinates of any number of input points (n). A single point is to be plotted when $n = 1$. 14
- b) Discuss the algorithm for filling a polygon using Boundary fill method. 6

OR

12. a) Write notes on any two 3 D viewing devices. 8
- b) For the following data pertaining to a used cars showroom, create a pie chart representation. 12

Month	Nov. 2010	Dec. 2010	Jan. 2011	Feb. 2011	Mar. 2011
Sales	800	600	900	500	700

Module – II

13. a) Explain a clipping algorithm that works with concave polygons. 10
- b) 'Changing the order in which a sequence of transformations is applied may affect the transformed position of the object'. Illustrate with an example. 10

OR

14. a) Summarize the steps in the 2D viewing pipeline. 8
- b) Explain any 2D rigid body transformation. 6
- c) Explain the rotation of a 3D object about an axis that is parallel to one of the co-ordinate axes. 6

Module – III

15. a) Explain the concept of vanishing point. 6
- b) Discuss the region labelling algorithm. 14

OR

16. a) Summarize the scan line algorithm for eliminating hidden surfaces. 12
- b) Explain the working of Robert edge detector. 8

