**R09**

Code No: 09A70504

**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD**

**B. Tech IV Year I Semester Examinations, November - 2013**

**Computer Graphics**

**(Computer Science and Engineering)**

**Time: 3 Hours** **Max. Marks: 75**

**Answer any Five Questions**

**All Questions Carry Equal Marks**

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1.a) Explain about the simple raster display system.
b) Explain the basic operations of direct view storage tube. [7+8]

2.a) Discuss in detail about parallel line algorithms.
b) Explain the even-odd method of determining the polygon interior points. [7+8]

3.a) Derive mathematically, the transformation that rotates an object point $\theta^0$ anti-clockwise, about the origin. Write the matrix representation for this rotation.
b) Show that the two successive rotations about the origin are commutative. [7+8]

4.a) Explain the various approaches followed in different line-clipping algorithms.
b) What is the principle of Cyrus-Beck algorithm for clipping a polygon? [7+8]

5.a) Define the blending function for B-Spline curve.
b) List various polygon rendering methods. [7+8]

6. Write a short note on
a) Quadtree
b) BSP trees
c) Boundary representation of solids. [15]

7.a) What are the steps involved in depth buffer algorithm?
b) Explain the Warnock's algorithm. [7+8]

8.a) What are the various types of interpolation used in animation?
b) What are the characteristics of keyframe animation? [7+8]

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