Code: 9D04203

M.Tech II Semester Supplementary Examinations January/February 2017

COMPUTER GRAPHICS

(Common to CAD/CAM & PEED)

Time: 3 hours Max. Marks: 60

Answer any FIVE questions

All questions carry equal marks

*****

1 (a) Explain the working principle of liquid crystal display monitor.
(b) Discuss in detail about the various input devices used in feeding data to a computer.

2 (a) Write Bresenham algorithm for drawing a line.
(b) What are the differences between DDA and Bresenham method of drawing line? Which method is good? Why?

3 (a) Explain how to half tone a rectangular region. Where is half tone applicable?
(b) Describe about seed filling method to fill inner side of a polygon.

4 (a) Describe Cohen Sutherland subdivision method to clip all possible regions.
(b) Describe how midpoint subdivision method is used to clip all possible regions.

5 (a) Write Hodgeman polygon clipping algorithm. Explain with a simple example.
(b) How is a character clipped? Explain with an example.

6 Derive a transformation matrix for translation and rotating combinations in the order of translation and rotation.

7 (a) Explain the variety of hidden surface removal method in detail.
(b) Write Warnock hidden surface removal algorithm. Give an example.

8 (a) Describe constant intensity algorithm for polygon rendering.
(b) Compare various shading algorithms in terms of accuracy and speed of execution.

*****