Seat
No.

T.E. (Computer Science. & Engineering) (Semester - V)
Examination, April - 2018
COMPUTER GRAPHICS
Sub. Code :66293

Day and Date : Tuesday, 24- 4 - 2018   Total Marks : 50
Time : 9.30 a.m. to 11.30 a.m.

Instructions :   1)   Q.No. 3 and Q. No.6 are compulsory. Attempt any one from Q.No.1
                        and Q.No.2 and any one from Q.No.4 and 5.
                2)   Figures to the right indicates full marks.
                3)   Assume suitable data if necessary.

Q1) a)   Explain with the help of transformation matrix 3D rotation and reflection.[6]

    b)   Explain with suitable example edge flage algorithm for polygon filling.[6]

Q2) a)   What are three possible selections for any given point on the circle to the
            next pixel which best represents the circle in Bresenham's algorithm?[6]

    b)   Explain end - point code algorithm for line clipping.   [6]

Q3) a)   Explain with the help of transformation matrix rotation of a 3D object
            about an arbitrary axis in space.   [7]

    b)   Explain sutherland - cohen midpoint subdivision algorithm for line clipping.[6]

Q4) a)   What are Bezier curves? Explain the properties of Bezier curves.   [6]

    b)   What is halftoning. Explain halftone approximation method for a 3 by 3
            pixel grid on a bilevel system.   [6]

Q5) a) Explain the Radiosity lighting model. [6]

b) Explain representation of parabolic blended curves. [6]

Q6) a) Explain different Motion Control Methods (MCMs). [6]

b) Explain how to find whether a polygon is disjoint, intersecting, contained or surrounding in a Warnock algorithm. [7]

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