

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 flag 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]

P.T.O.

- 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]

