Total No. of Questions—**8**] [Total No. of Printed Pages—**2**

Seat No.	

[5252]-169

S.E (Comp.) (Second Semester) EXAMINATION, 2017

COMPUTER GRAPHICS AND GAMING

(2012 PATTERN)

Time : Two Hours **Maximum Marks : 50**

N.B. **:—** *All* questions are compulsory.

1. (*a*) Explain the following graphics primitives : [6]

(*i*) Tablets

(*ii*) Light Pen

(*b*) Explain Bresenham's line drawing algorithm. Using Bresenham's algorithm to draw a line from (1, 1) to (5, 3). [6]

Or

2. (*a*) Explain flat panel displays in detail. [6]

(*b*) What is antialiasing ? How aliasing effect is removed in vector generation algorithm. [6]

3. (*a*) Explain with suitable diagram concave and convex polygons. [2]

(*b*) Explain boundary fill algorithm for polygon. [4]

(*c*) Perform a 45° rotation of a triangle A(0, 0), B(l, l) and C(5, 2) about the origin. [6]

P.T.O.

Or

4. (*a*) Explain Sutherland-Hodgman algorithm for polygon clipping. [8]

(*b*) Describe Scaling w.r.t. 2D transformation. [4]

5. (*a*) Explain how binary space partition algorithm be used for removal of hidden surfaces. [8]

(*b*) Explain Koch curve in detail giving fractal dimension. [5]

Or

6. (*a*) Explain Warnock's Algorithm. [7]

(*b*) Write short notes on : [6]

(*i*) Ray-tracing

(*ii*) Transparency

7. (*a*) Describe Creation and Deletion operations carried out on the segment. [6]

(*b*) Compare conventional and computer based animation techniques. [4]

(*c*) What are advantages of CUDA ? [3]

Or

8. (*a*) Explain link list data structure to represent a display file. [5]

(*b*) Write a short note on Animation Languages. [4]

(*c*) What is morphing ? Give applications of Morphing. [4]