

May 2017

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Seat No.	
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[5152]-567

S.E. (Computer) (II Sem.) EXAMINATION, 2017

COMPUTER GRAPHICS

(2015 PATTERN)

Time : Two Hours

Maximum Marks : 50

N.B. :— (i) Neat diagrams must be drawn wherever necessary.

(ii) Assume suitable data, if necessary

(iii) Attempt Q. No. 1 or Q. No. 2, Q. No. 3 or Q. No. 4, Q. No. 5 or Q. No. 6, Q. No. 7 or Q. No. 8.

1. (a) Write and explain Bresenham's line algorithm and find out which pixel would be turned on for the line with end points (3, 2) to (7, 4) using the same. [7]
(b) Explain Scanline Fill algorithm in detail. [5]

Or
2. (a) Explain DDA line drawing algorithm with example. [4]
(b) Explain character generating methods. [2]
(c) Explain Cohen-Sutherland Line clipping algorithm with example. [6]
3. (a) Explain how to perform rotation about an arbitrary axis in 3-D with diagram. [4]

P.T.O.

4. (a) What are the types of projections and brief about each type of projections. [6]
(b) Explain CIE Chromaticity Diagram. [4]
(c) What is Animation and Morphing ? [2]
5. (a) Enlist and explain Shading algorithms with their disadvantages. [7]
(b) Explain Z-buffer and BSP hidden face removal algorithm with their advantage. [6]

Or
6. (a) Explain Warnock's and Painter's hidden face removal algorithm. [6]
(b) Write short notes on (any two) [7]
 - (i) Half Tone
 - (ii) Phong Specular Reflection Model
 - (iii) Warn Model.

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7. (a) Explain Bezier Curve. List its properties. [6]
(b) What is Fractals ? Explain Triadic (Koch) and Hilbert curve. [7]

Or

8. (a) Draw block diagram of NVIDIA workstation and brief about it [4]
(b) Write short notes on : [9]
(i) OpenGL
(ii) i380
(iii) B-spline Curve.