

Total No. of Questions—8]

(Total No. of Printed Pages—2

Seat No.
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[5668]-206

**S.E. (Sem. II) (Information Technology) EXAMINATION, 2019**  
**COMPUTER GRAPHICS**  
**(2015 PATTERN)**

**Time : Two Hours**

**Maximum Marks : 50**

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

(ii) Figures to the right indicate full marks.

(iii) Assume suitable data, if necessary.

1. (a) Explain Display file and its Structure with an example. [6]  
(b) Explain Character Generation Methods with its types. [6]
2. (a) Explain Shearing and Scaling Transformations in detail. [6]  
(b) What is Seed point ? Explain Flood fill Algorithm. [6]

Or

3. (a) Explain different types of parallel projections. [6]  
(b) Explain Cohen Sutherland line clipping method with suitable example. [6]

Or

4. (a) Explain 3D reflection about  $xy$ ,  $yz$  and  $xz$  plane. [6]  
(b) Explain the following terms : [6]
  - (i) Screen coordinates
  - (ii) World coordinates
  - (iii) Window
  - (iv) Viewport.

P.T.O.

5. (a) Draw and explain diagram of i860 processor along with applications. [7]  
(b) Enumerate and explain different shading methods in detail. [6]

Or

6. (a) Explain in detail graphics memory pipeline. [7]  
(b) What are the steps in design in animation ? Describe each step briefly. [6]

7. (a) Explain Bezier curve generation using midpoint subdivision. [7]  
(b) How fractals are used to generate fractal surfaces ? Give two examples of fractal surfaces. [6]

Or

8. (a) Explain how Koch curves are generated. Also calculate the fractal dimension and topological dimension of the Koch curve. [7]  
(b) Define fractals with examples. Give various categories in which fractals are classified. [6]

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