



RR-0875
Third Year B. Sc. Examination
March/April – 2010
Computer Science : Paper - VIII
(Old Course)

Time : 3 Hours]

[Total Marks : 70

Instructions :

(1)

<p>नीचे दर्शाविएल निशानीवाणी विगतो उत्तरवही पर अवश्य लभवी. Fillup strictly the details of signs on your answer book.</p> <p>Name of the Examination : T. Y. B. Sc.</p> <p>Name of the Subject : Computer Science - 8 (Old)</p> <p>Subject Code No. : 0 8 7 5 Section No. (1, 2,.....): Nil</p>	<p>Seat No. : [][][][][][][]</p> <div style="border: 1px solid black; border-radius: 15px; padding: 10px; text-align: center; margin-top: 10px;">Student's Signature</div>
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(2) All questions carry **equal** marks.

(3) **Q. 1** is **compulsory**.

- 1 (i) Define pixel ? What is point in the computer graphics system ? 14
- (ii) Differentiate between view port and window.
- (iii) What is an output primitive ? List out output primitives.
- (iv) Discuss different line caps.
- (v) What is bundled attributes ?
- (vi) Why are homogeneous coordinates used for transformation computations in Computer Graphics ?
- (vii) What is rendering ? What are different stages of rendering and image ?
- 2 (a) Explain the steps in mid point circle drawing algorithm. 7
- (b) Explain different techniques of polygon inside test. 7

OR

- 2 (a) Justify "Bresenham's line drawing algorithm uses integer arithmetic" with procedure. 7
 (b) Write and explain Sutherland-Hodgeman polygon clipping algorithm. 7
- 3 (a) Explain boundary fill procedure. And how it differs from other procedures. 8
 (b) Explain the important characteristics of hard copy devices. 6
- OR**
- 3 (a) Describe basic transformation. Explain translation, scaling and rotation with 3D matrices. 8
 (b) Explain various clipping operations on different objects. 6
- 4 (a) Explain 2D technique of window to view point coordinate transformation. 7
 (b) Explain important characteristics of view display devices. 7
- OR**
- 4 (a) Explain color and gray scale and area fill attributes. 7
 (b) Explain Winding number and even-odd method with procedure. 7
- 5 Explain any two from following : 14
 (1) Shearing and reflection transformations
 (2) Applications of computer graphics
 (3) Shadow mask technique.
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