


RAN-2011000305020083

B. Sc. (Computer Science) (Sem.-V) (Non-NEP) Examination October - 2025
Computer Science-VIII (Paper 503- Computer Graphics)

Time: 2 Hours]
[Total Marks: 50
સૂચના : / Instructions

- (1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
 Fill up strictly the above details on your answer book

Seat No.:

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Student's Signature

- Q.1. Answer the following. 14**
1. Explain what a pixel is. What is a frame buffer?
 2. What does antialiasing mean?
 3. Define concave and convex polygons.
 4. What is shading?
 5. How is morphing defined in graphics?
 6. What does the term “light source” mean?
 7. Define transformation.
- Q.2. Answer the following. (Any Two) 12**
1. Explain Bresenham’s line drawing algorithm.
 2. Describe the operation of a laser jet printer.
 3. Discuss the detailed attributes of text and characters in computer graphics.
 4. What is the even-odd rule for determining if a point is inside or outside a polygon? Explain how it works.
- Q.3. Answer the following. (Any Two) 12**
1. Write a note on basic transformations in computer graphics.
 2. Explain homogeneous coordinates and provide an example.
 3. Describe the winding number method for the inside-outside test.
 4. Provide a detailed explanation of the flood fill method.
- Q.4. Answer the following. (Any two) 12**
1. Explain Cohen-Sutherland line clipping algorithm.
 2. Discuss viewing transformation.
 3. Compare Phong shading and constant shading, discussing their techniques and visual effects.
 4. Discuss the PNG and BMP file formats, including their features and uses.