

B. N. Bandodkar College of Science, Thane
S. Y. B. Sc. Semester IV Examination, March 2015
Course Code: USCS401

Duration: 02.30 Hrs

Total Marks: 75

- Q.1 Answer the following:**
- a. What is Computer graphics? Explain its application in detail? 08
- OR**
- a. Explain the Steps in DDA? Rasterizing the line from (0, 0) to (4, 6) point and plot the graph? 08
- b. What is Cathode Ray Tube? Explain its Techniques? 07
- OR**
- b. Explain the functions of Computer graphics in C with example? 07
- c. Explain Midpoint Circle drawing Algorithm? 05
- OR**
- c. Explain Bresenham's line drawing Algorithm? 05
- Q.2 Answer the following:**
- a. What is Bezier Curve and explain its properties? 08
- OR**
- a. What is Viewing & Viewing Transformation? 08
- b. What is Polygon Clipping? Explain Sutherland-Hodgeman polygon clipping? 07
- OR**
- b. Explain Normalization & Workstation Transformation? 07
- c. What is Transformation Matrix for Rotation & Scaling? 05
- OR**
- c. Explain representation of Spline curve? 05
- Q.3 Answer the following:**
- a. Explain Hidden surface elimination algorithm in detail? 08
- OR**
- a. What is light model? Explain its types in detail? 08
- b. Explain Virtual reality in detail? 07
- OR**
- b. What is shading techniques and explain its types in details? 07
- c. What is Texture mapping? 05
- OR**
- c. Write a short note on Shadows? 05
- Q.4 Answer any THREE of the following: 15**
- a. Explain the use of Output device in Computer graphics?
- b. What is the use of Vector Scan display in CRT?
- c. What is Wire-Frame Model?
- d. What is clipping? Explain its types?
- e. Write a short note on Transparency Effect?
- f. Write note on Morphing?