

**MCA-501 (N2)**

Roll No \_\_\_\_\_

**Computer Graphics**

**Section A, B, C and D will have two questions carrying 10 marks each.**

**Candidates are required to attempt one question from each section and section E is compulsory.**

**Section A:**

1. What are 3D viewing devices? Explain in detail? (10)
2. Explain the following:
  - a) Flatbed plotters and Drum Plotters (5)
  - b) CRT monitors (5)

**Section B:**

3. What do you mean by homogeneous co-ordinate system in 2D graphics? (10)
4. Define the following :
  - a) Polygon Clipping (5)
  - b) Area filling techniques (5)

**Section C:**

5. What is geometric transformation? Explain the different terminologies used in this process? (10)
6. What is 2D viewing? Explain the implementation of other geometric shapes?(10)

**Section D:**

7. Explain in detail the process of sub division in computer graphics? (10)
8. Explain the constant intensity methods and diffuse reflection? (10)

**Section E:**

9.
  - a) What is direct view storage tube? (2)
  - b) Explain the term: graphic tablets? (2)
  - c) What is phong shading? (2)
  - d) Explain the process of cartesian in 2D transformation? (2)
  - e) What is light intensity? (2)
  - f) What is difference between viewing in 2D and 3D transformation? (2)
  - g) Explain voice system process in graphics? (2)
  - h) What are the functional characteristics of graphics system? (2)
  - i) What is scanner? (2)
  - j) Discuss the overview concept of character generation? (2)

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