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Total No. of Printed Pages: 1

Total No. of Questions: [09]

**BCA-MCA Dual Degree (Semester – 6<sup>th</sup>)**

**COMPUTER GRAPHICS**

**Subject Code: BMCAS1601**

**Paper ID: [19340124]**

**Time: 03 Hours**

**Maximum Marks: 60**

**Instruction for candidates:**

1. Section A is compulsory. It consists of 10 parts of two marks each.
2. Section B consist of 5 questions of 5 marks each. The student has to attempt any 4 questions out of it.
3. Section C consist of 3 questions of 10 marks each. The student has to attempt any 2 questions.

**Section – A**

**(2 marks each)**

- Q1. Briefly explain the following:
- a) Point Clipping.
  - b) Plotters.
  - c) Widow Port and View Port.
  - d) Z-Buffer.
  - e) RGB Color Model.
  - f) Look Up table.
  - g) Digitizers.
  - h) The use of Light Pen.
  - i) Reflection Shear.
  - j) Composite Transformations.

**Section – B**

**(5 marks each)**

- Q2. Explain DDA Line Drawing Algorithm.
- Q3. Differentiate between Random Scan and Raster Scan Display Methods.
- Q4. Differentiate between Boundary Fill and Flood Fill Algorithm.
- Q5. Explain Halftoning and Dithering.
- Q6. Explain Painters algorithm.

**Section – C**

**(10 marks each)**

- Q7. Explain Windowport to Viewport Transformation.
- Q8. Explain 2-D transformations: Translation, Rotation, Shearing, Scaling.
- Q9. Differentiate between Parallel and Perspective Projections.