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**B. Tech (CSE) (Semester –5th)**  
**COMPUTER GRAPHICS**  
**Subject Code: BCSED1511**  
**Paper ID: 18111124**

**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. Attempt the following:

- a) Define Antialiasing?
- b) What is Projection and its types?
- c) Write the 2D matrix representation of shearing transformation.
- d) Write difference between Aspect Ratio and Persistence.
- e) Why interlacing is used in raster scan display
- f) Define vanishing point.
- g) Differentiate between random scan and raster scan systems.
- h) What do you mean by scan conversion.
- i) Write about Polygon clipping.
- j) Define term of Rendering and Fractals.

**Section – B**

**(5 marks each)**

- Q2. Explain Depth sort algorithm for hidden surface removal.
- Q3. Write down Bresenham's line drawing algorithm and explain it with example.
- Q4. Write down the difference between boundary fill and flood fill algorithms.
- Q5. Explain about the Conversion between RGB and CMY color Models.
- Q6. Difference between LCD and LED and which is better and why?

**Section – C**

**(10 marks each)**

- Q7. Explain applications of Computer Graphics.
- Q8. What is Line Clipping? Explain Cohen Sutherland Line Clipping Algorithm with example.
- Q9. Define transformation. Explain two dimensional transformations with examples.