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Name.....

Reg. No.....

**FOURTH SEMESTER (CBCSS—UG) DEGREE EXAMINATION  
APRIL 2024**

B.C.A.

BCA 4C 08—COMPUTER GRAPHICS

(2019 Admission onwards)

Time : Two Hours

Maximum : 60 Marks

**Section A (Short Answer Type Questions)**

*Answer all questions.*

*Each correct answer carries a maximum of 2 marks.*

*Ceiling 20 marks.*

1. Which are the regions defined by Cohen-Sutherland algorithm ?
2. Describe about LED.
3. What do you mean by shear ?
4. What is a flat panel display ?
5. List any *two* applications of Computer graphics.
6. What is scan conversion in computer graphics ?
7. What do you mean by scan conversion of lines ?
8. Define reflection in 2D transformations.
9. What is a clip window ?
10. What are homogeneous co-ordinates and why are they used ?
11. What is window to viewport transformation ?
12. Describe the role of GIMP in image manipulation.

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**Section B (Short Paragraph Type Questions)**

*Answer all questions.*

*Each correct answer carries a maximum of 5 marks.  
Ceiling 30 marks.*

13. Differentiate between raster scan and random scan display.
14. Explain Bresenham's algorithm for circle generation.
15. Explain about window to viewport transformation.
16. Explain about Light and color applications.
17. Explain about scaling.
18. Explain the working of LED monitors.
19. Explain about line clipping with an example.

**Section C (Essay Type Questions)**

*Answer any one question, correct answer carries 10 marks.*

20. Explain polygon clipping and Sutherland and Gray Hodgman Polygon Clipping Algorithm.
21. Explain about different color models and their application.

(1 × 10 = 10 marks)