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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)

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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.

 $(1 \times 10 = 10 \text{ marks})$