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Name...................................

Reg. No...............................

FOURTH SEMESTER (CBCSS—UG) DEGREE EXAMINATION APRIL 2023

B.C.A.

BCA 4C 08—COMPUTER GRAPHICS

(2019 Admission onwards)

Time : Two Hours

Maximum : 60 Marks

Section A

Answer any **ten** *questions.*
Each question carries 2 marks.

1. Distinguish between Persistence and resolution.

2. Explain the importance of frame buffer.

3. What is the principle behind raster scan display system ?

4. Explain why homogeneous co-ordinate representation is used.

5. Explain the role of decision parameter in Bresenham's line drawing algorithm.

6. Give the DDA line drawing algorithm function.

7. What is window to viewport transformation ?

8. Explain the strategies used in Sutherland Hodgeman polygon clipping algorithm.

9. Explain different color models.

10. How can we draw a circle with GIMP ?

11. What are the file formats supported in GIMP ?

12. Distinguish between emissive and non-emissive displays.

(10 × 2 = 20 marks)

Section B

Answer any **six** *questions.*
Each question carries 5 marks.

13. Explain the two-dimensional transformations in detail.

14. Briefly describe the techniques used in color CRT monitors.

Turn over

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15. Explain Bresenham's circle generating algorithm.

16. Describe Cohen Sutherland line clipping algorithm

17. Write short notes on reflection and shear.

18. Distinguish between raster and random scan methods.

19. Explain the applications of GIMP.

$(6 \times 5 = 30)$

Section C

Answer any **one** *question.*
The question carries 10 *marks.*

20. Explain the working of Refresh CRT.

21. Explain scan line polygon filling algorithm.

$(1 \times 10 = 10)$