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FOURTH SEMESTER (CBCSS-UG) DEGREE EXAMINATION, APRIL 2022

B.C.A.

BCA 4C 08—COMPUTER GRAPHICS

(2019 Admission onwards)

Time : Two Hours

Maximum : 60 Marks

Section A

Answer at least **eight** questions. Each question carries 3 marks. All questions can be attended. Overall Ceiling 24.

- 1. Write short notes on bitmap and pixmap.
- 2. Explain CAD and Presentation Graphics as applications of computer graphics.
- 3. Explain Color Look up table.
- 4. How stair step appearance occurs in computer graphics.
- 5. How to remove a window border in GIMP?
- 6. How will you retrieve the current frame buffer intensity setting for a specified location ?
- 7. What is polygon filling?
- 8. What is Shear ?
- 9. Distinguish between window and viewport.
- 10. Explain the basic principles of line clipping algorithm.
- 11. Explain how to perform Scaling with respect to a selected fixed position.
- 12. What is scan conversion?

 $(8 \times 3 = 24 \text{ marks})$

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Section B

Answer at least **five** questions. Each question carries 5 marks. All questions can be attended. Overall Ceiling 25.

- 13. Explain the sequence of transformations in windowing.
- 14. Distinguish between active and passive matrix LCD displays.
- 15. Explain the transformation matrix to perform two successive scaling operations.
- 16. Explain any *five* applications of computer graphics.
- 17. Explain the procedure to check the position of a point with respect to the clip window
- 18. How do we merge an image from a file to the current image in gimp?
- 19. Explain different types of LED monitors.

 $(5 \times 5 = 25 \text{ marks})$

Section C

Answer any **one** question. The question carries 11 marks.

- 20. Briefly explain the working of LCD displays with the help of block diagrams.
- 21. Explain in detail the various standards primaries and chromaticity diagram used in color models.

 $(1 \times 11 = 11 \text{ marks})$