21U416	(Pages: 2)	Name:
		Reg.No:

FOURTH SEMESTER B.C.A. DEGREE EXAMINATION, APRIL 2023

(CBCSS - UG)

(Regular/Supplementary/Improvement)

CC19U BCA4 C08 - COMPUTER GRAPHICS

(Computer Application - Complementary Course) (2019 Admission onwards)

Maximum: 60 Marks

Credit: 3

Part A (Short answer questions)

Answer *all* questions. Each question carries 2 marks.

- 1. List the applications of Computer graphics.
- 2. Define DVST.

Time: 2.00 Hours

- 3. Define bitmap, scan line in raster scan.
- 4. Define refresh display file.
- 5. Explain any two differences between LCD and LED.
- 6. List steps when $\Delta y=1$ in DDA algorithm.
- 7. List steps when d>0 in Bresenham's circle algorithm.
- 8. Write the Row-major equation for Homogenous co-ordinates of Scaling.
- 9. Write the Row-major equation on X-shear.
- 10. Define Complementary colors.
- 11. Define CMY color model.
- 12. Explain any two advantages of Gimp.

(Ceiling: 20 Marks)

Part B (Short essay questions - Paragraph)

Answer all questions. Each question carries 5 marks.

- 13. Explain plasma panel display.
- 14. Explain types of video display devices.
- 15. Explain techinques for producing color displays with a CRT.
- 16. Explain window to viewport transformation.
- 17. Illustrate the Line Clipping algorithm.

- 18. Explain Sutherland Hodgeman Polygon Clipping algorithm.
- 19. Explain working of paint tools in GIMP.

(Ceiling: 30 Marks)

Part C (Essay questions)

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

- 20. Explain Scan Line Polygon Filling algorithm with example.
- 21. Explain Two Dimensional transformations in detail.

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