

**C 3509**

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Name.....

Reg. No.....

**FOURTH SEMESTER (CBCSS—UG) DEGREE EXAMINATION  
APRIL 2021**

B.C.A.

BCA 4C 08—COMPUTER GRAPHICS

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. Explain the function of display processor ?
2. Distinguish text and point clipping ?
3. What are 2D transformations ?
4. Explain any *two* applications of computer graphics.
5. Distinguish between emissive and non-emissive displays.
6. Distinguish between horizontal retrace and vertical retrace.
7. Distinguish between aspect ratio and resolution.
8. What is Windowing ?
9. What is a beam penetration method ?
10. What is the significance of homogenous co-ordinates in computer graphics ?
11. What are color models ?
12. What are the main components of GIMP window ?

(8 × 3 = 24 marks)

**Turn over**

**Section B**

*Answer at least **five** questions.*

*Each question carries 5 marks.*

*All questions can be attended.*

*Overall Ceiling 25.*

13. Explain Raster scan display systems.
14. What are the disadvantages of DDA line drawing algorithm ?
15. Explain composite transformations.
16. Explain the terms purity, brightness and luminance of light.
17. Explain any polygon fill algorithm.
18. Express the conversion from RGB to YIQ color model.
19. What is the main difference between magic wand and select by color ?

(5 × 5 = 25 marks)

**Section C**

*Answer any **one** question.*

*The question carries 11 marks.*

20. Explain Bresenham's circle generating algorithm.
21. Explain image manipulation operations using GIMP.

(1 × 11 = 11 marks)