

S.No. 5214

16 SMBECA 1 : 1/
16 SMBECS 2 : 1

(For candidates admitted from 2016-2017 onwards)

B.C.A./B.Sc. DEGREE EXAMINATION, APRIL 2022.

Part III — Computer Science/
Computer Application — Major Based Elective

COMPUTER GRAPHICS

Time : Three hours

Maximum : 75 marks

PART A — (10 × 2 = 20)

Answer ALL questions.

1. List out any four input devices used in graphics.
2. Define workstation.
3. Define shearing.
4. Define clipping.
5. List out various text clipping operations.
6. Give the matrix representation of 2D graphics.
7. Define user interface.

8. What is user dialogue?

9. What is scaling?

10. Give two applications of computer graphics.

PART B — ($5 \times 5 = 25$)

Answer ALL questions, choosing either (a) or (b).

11. (a) Differentiate Raster scan system and Random scan systems.

Or

(b) Explain workstations in graphics.

12. (a) Describe the method to loading frame buffer.

Or

(b) List line functions in graphics.

13. (a) Describe basic transformation.

Or

(b) Explain polygon clipping.

14. (a) Discuss the input of graphical data.

Or

(b) List techniques to create interactive pictures.

15. (a) Explain 3D scaling transformation.

Or

(b) Explain scan line method.

PART C — ($3 \times 10 = 30$)

Answer any THREE questions.

16. State the various graphics software.

17. Implement the Bresenham's line drawing algorithm.

18. Give the Cohen-Sutherland line clipping algorithm and explain.

19. List the packages used in 3D graphics and explain.

20. Analyse the applications of computer graphics.