C 20576 **(Pages : 2)** **Name.....**

Reg. No.....

SIXTH SEMESTER U.G. DEGREE EXAMINATION, MARCH 2022

(CBCSS—UG)

Computer Science

BCS 6B 16(d)—Computer Graphics

(2019 Admissions)

Time : Two Hours Maximum : 60 Marks

Section A (Short Answer Type Questions)

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

1. What is display processor ? List out its components.
2. What is gray scale in graphics ?
3. What do you mean by frame in graphics ?
4. Explain the technology behind LCD monitor.
5. What do you mean by scan conversion ?
6. Explain basic idea behind scan line polygon filling algorithm.
7. What is reflection transformation ? Explain with example.
8. What is the primary use of clipping ?
9. What are the basic transformations types in computer graphics ?
10. Describe windows and view ports.
11. What is the use of clipping in computer graphics ?
12. What do you mean by CMY color mode ?

(8 × 3 = 24 marks)

Turn over

Section B (Short Essay Type Questions)

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

13. Briefly explain various display devices in computer graphics ?
14. Differentiate between DDA and Bresenham's line drawing algorithm.
15. Explain any *one* polygon filling algorithm in computer graphics.
16. Explain any *two* in connection with 2D transformation :
    (a) Translation.
    (b) Rotation.
    (c) Scaling.
17. What is homogeneous transformation ?
18. Discuss in detail any *two* color models.
19. Explain the key features of GIMP.

(5 × 5 = 25 marks)

Section C (Essay Type Questions)

Answer any **one** *questions.*
Each question carries 11 *marks.*

20. Explain scan conversion of Bresenham's circle generating algorithm.
21. Explain in detail Cohen Sutherland Polygon clipping algorithm.

(1 × 11 = 11 marks)