

(Pages : 3)

H – 6508

Reg. No. :

Name :

Fifth Semester B.Sc./B.C.A. Degree Examination, December 2019

Career Related First Degree Programme under CBCSS

Group 2 (b) – Computer Science / Computer Applications

Core Course

CS 1543/CP 1542 : COMPUTER GRAPHICS

(2014 Admission Onwards)

Time : 3 Hours

Max. Marks : 80

SECTION – A (Very Short Answer)

One word to maximum of one sentence. Answer **all** questions.

1. What do you mean by resolution?
2. What is clipping?
3. What is aliasing effect?
4. What do you mean by projection?
5. What do you mean by transformation?
6. What is a window port?
7. What is a refresh buffer?

8. What do you mean by vertical retrace?
9. Which is the color produced by the intersection of primary CMYK color?
10. What is zooming?

SECTION – B (Short answer)

(10 × 1 = 10 Marks)

Not to exceed one paragraph. Answer any **eight** questions. Each question carries 2 marks.

11. Distinguish between window port and view port.
12. What is dragging?
13. What are the steps involved to perform scaling in 3D?
14. Distinguish between uniform scaling and differential scaling.
15. What is gouraud shading?
16. What you mean by parallel projection?
17. How surface rendering realism can be attained?
18. What are output primitives?
19. What is CYMK color model?
20. What do you mean by hidden surface removal?
21. What is reflection?
22. What is the z-axis rotation equation of 3d homogeneous coordinate?

(8 × 2 = 16 Marks)

SECTION - C (Short essay)

Not to exceed 120 words. Answer any **six** questions. Each question carries **4** marks.

23. Explain 2D composite transformations.
24. Write short notes on illumination techniques.
25. Explain the advantages and disadvantages of Z-buffer.
26. Write short notes on animations.
27. Explain shearing with an example.
28. Explain the working of liquid crystal display.
29. Write short notes on video adapters.
30. Explain the concept of warping.
31. Write short notes on panning.

SECTION - D (Long essay)

(6 × 4 = 24 Marks)

Answer any **two** questions. Each question carries **15** marks.

32. Explain the 3D transformation in detail.
33. Explain Bresenham's line drawing algorithm.
34. Explain the working of CRT with a diagram.
35. Briefly explain Sutherland Hodgman polygon clipping algorithm.

(2 × 15 = 30 Marks)