

B.C.A. DEGREE (C.B.C.S.S.) EXAMINATION, OCTOBER 2017**Third Semester****Core Course—COMPUTER GRAPHICS****(2013 Admission onwards)****Time : Three Hours****Maximum Marks : 80****Part A (Short Answer Questions)***Answer all questions.**Each question carries 1 mark.*

1. List the characteristics of raster scan display.
2. Define Computer Graphics.
3. What is reflection ?
4. What is scaling ?
5. Define Pixel.
6. What is bitmap and pixmap ?
7. Distinguish between convex and concave polygons ?
8. What is transformation ?
9. What is translation ?
10. Explain octrees.

(10 × 1 = 10)**Part B (Brief Answer Questions)***Answer any eight questions.**Each question carries 2 marks.*

11. Explain polygon clipping ?
12. Explain line clipping ?
13. Differentiate between raster and vector graphics.
14. Define Window and Viewport.
15. What is meant by refresh buffer and frame buffer ?

Turn over

16. How exterior clipping is done ?
17. Explain about windows and icons.
18. Define orthographic parallel projection.
19. Explain about B-spline curve.
20. Explain about different flat panel displays.
21. What is composite transformation ?
22. List the properties of different input devices.

(8 × 2 = 16)

Part C (Descriptive/Short Essay Type Questions)

Answer any six questions.

Each question carries 4 marks.

23. What are the steps involved in text clipping ?
24. What do you mean by view plane ? Explain.
25. Write short notes on raster scan displays with neat diagram.
26. Explain in detail about Cohen Sutherland algorithm.
27. Explain about Bresenham's line drawing algorithm.
28. Explain the attributes of line style.
29. Write a note on window to viewport devices.
30. Briefly describe about applications of computer graphics.
31. Explain about various interactive picture construction methods.

(6 × 4 = 24)

Part D (Essays)

Answer any two questions.

Each question carries 15 marks.

32. Describe the features of different display devices.
33. Write and explain circle generation algorithm.
34. Explain in detail about various clipping techniques.
35. What are different Three Dimensional object representations ? Explain each method.

(2 × 15 = 30)