E 1316 (Pages : 2) Reg. No.....

Name.....

B.C.A. DEGREE (C.B.C.S.S.) EXAMINATION, OCTOBER 2015

Third Semester

Core Course – COMPUTER GRAPHICS

(2013 Admission onwards)

Time : Three Hours Maximum : 80 Marks

Part A (Short Answer Questions)

Answer **all** *questions.*

1 *mark each.*

1. What is the use of frame buffer?
2. Define horizontal retrace.
3. What do you mean by run length encoding?
4. Expand PHIGS.
5. What do you mean by homogeneous co-ordinates?
6. Define a view port.
7. What do you mean by clipping?
8. What do you mean by quad trees?
9. What is a grid?
10. Name any *two* three dimensional graphical packages.

(10 × 1 = 10)

Part B (Short Answer Questions)

Answer any **eight** *questions.*

2 *marks each.*

11. What do you mean by raster icon display?
12. Write about any *one* input device.
13. How a character is generated?
14. How an image scanner works?
15. What do you mean by composite transformation?
16. What is a window to view port transformation?

Turn over

17. How a point clipping is performed?
18. What is a stroke device?
19. What do you mean by rubber band method?
20. How to set an edit mode?
21. What is depth cueing?
22. Write plane equations.

(8 × 2 = 16)

Part C (Short Essays)

Answer any **six** *questions.*
4 *marks each.*

23. Write short note on editing structures.
24. Explain DDA algorithm.
25. Explain constructive solid geometry methods.
26. Explain mid-point circle algorithm.
27. How a composite transformation is done?
28. Explain Cohen-Sutherland line clipping.
29. Explain Octrees.
30. How polygon surfaces are represented?
31. Explain random scan displays.

(6 × 4 = 24)

Part D (Long Essays)

Answer any **two** *questions.*
15 *marks each.*

32. Write essay on 2D transformations.
33. Explain mid point circle algorithm.
34. Explain Sutherland-Hodgeman polygon clipping.
35. Explain various *three* dimensional display methods.

(2 × 15 = 30)