

18. (a) Explain about plane equations.

Or

- (b) Write a detailed note on :

- (i) sphere
- (ii) ellipsoid
- (iii) torus.

19. (a) Explain about viewing pipeline in 3D.

Or

- (b) Explain 3D viewing.

20. (a) Explain about basic illumination models.

Or

- (b) Explain briefly about computer animation.

Reg. No. :

Code No. : 8713

Sub. Code : C 3 A 2

M.C.A. (CBCS) DEGREE EXAMINATION,
NOVEMBER 2011.

Third Semester

Computer Applications

COMPUTER GRAPHICS

(For those who joined in July 2008 and afterwards)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

1. What are the various types of Hard-Copy devices?
2. Define world coordinates.
3. Write the composite matrix for two successive rotations.
4. What is midpoint subdivision?
5. What is vertex table?

6. List the function of control point.
7. What do you mean by concatenation?
8. Define elevations.
9. What is the use of primary color?
10. Define direct motion system.

PART B — ($5 \times 5 = 25$ marks)

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

11. (a) Explain the working principle of Random-Scan and Raster Scan monitors.
Or
(b) Explain the working of a mouse.
12. (a) Describe the following :
(i) Text clipping
(ii) Curve clipping.
Or
(b) Write a short note on Transformation in viewing.
13. (a) Explain how curved surfaces are handles in graphics.
Or
(b) Distinguish between perspective and parallel projection.

14. (a) Explain about 3D Geometric Transformations.

Or

- (b) Discuss about the 3D clipping technique.
15. (a) Distinguish between Depth-buffer and A-buffer algorithm.

Or

- (b) Explain the concept of visible surface detection.

PART C — ($5 \times 8 = 40$ marks)

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

16. (a) Explain various types of display processors.
Or
(b) Explain the properties of the following :
(i) Circles
(ii) Ellipse.
17. (a) Discuss about 2D composite transformations.
Or
(b) Write a short note on the following in 2D :
(i) Translation
(ii) Scaling
(iii) Rotation.