



### SECTION-C

5. Discuss the various 3-D geometric transformations. Explain in detail with help of example.
6. List and explain the properties B spline curves in detail. Develop an algorithm for calculating the normal vector to a Bezier surfaces at the point P ( $u, v$ ).

### SECTION-D

7. Discuss the scan line method for hidden surface removal. How is different from Z-Buffer? Describe in detail.
8. Why visual surface detection is important in graphics? How is the detection techniques classified?

### SECTION-E

**9. Write briefly :**

- a) What are graphics tablets?
- b) What do you mean by scan line?
- c) How would you represent a point at infinity using homogenous coordinates?
- d) What is difference between boundary-fill algorithm and flood-fill algorithm?
- e) What is aspect ratio of display devices? What is its importance?
- f) What are vanishing points?
- g) What is anti-aliasing? Where is it used?
- h) What the antimalies of perspective projections?
- i) What is the diffuse reflection?
- j) What is the Phong's shading?