

***B. Tech Degree V Semester (Supplementary) Examination,
July 2009***

**ME 503 COMPUTER GRAPHICS
(1999 Scheme)**

Time: 3 Hours

Maximum Marks: 100

- I. a. Explain the working of any three graphical input devices. (10)
b. Explain the applications of computer graphics in various fields. (10)
- OR**
- II. a. Differentiate between raster scan and random scan display devices giving examples for each. (10)
b. Describe about any one display devices which possesses inherent image storage capability. (10)
- III. a. Write notes on homogeneous co-ordinates and concatenation of transformations. (10)
b. With a suitable example differentiate between geometric transformation and co-ordinate transformation. (10)
- OR**
- IV. a. Explain the various 2D transformations with their matrices. (10)
b. Derive the transformation for reflection with respect to a line $y=4x$. (10)
- V. a. Write notes on: (i) Isometric projection (ii) Stereo graphic projection. (10)
b. Write the transformation matrix for rotation about an arbitrary axis in space. (10)
- OR**
- VI. a. Write notes on: (i) Orthographic projection (ii) Axonometric projection (10)
b. Explain the various techniques for generating perspective views. (10)
- VII. a. Differentiate between non parametric and parametric representation of curves. (10)
b. Discuss about: (i) Cubic splines (ii) Parabolic blending. (10)
- OR**
- VIII. a. Write notes on (i) Buzier curves (ii) B-spline curves. (10)
b. Explain about representation of space curves. (10)
- IX. a. Name the natural quadric surfaces. Write an expression for a general quadric surface. (10)
b. Explain about ruled and developable surfaces. What do you mean by a bilinear surface. (10)
- OR**
- X. Write notes on:
(i) Buzier surfaces
(ii) B-spline surfaces
(iii) Surfaces of revolution
(iv) Piecewise surface representation. (20)

