

B. Tech Degree VI Semester Examination, April 2010

ME 606 CAD/CAM (2006 Scheme)

Time : 3 Hours

Maximum Marks : 100

PART – A

(Answer ALL questions)

(All questions carry EQUAL marks)

(8 x 5 = 40)

- I. (a) Explain briefly about 'Detroit type of automation'.
(b) Explain analysis of a problem using FEM.
(c) Describe the principles of displacement measurement.
(d) What are canned cycles?
(e) What is a machining centre?
(f) Compare static and dynamic errors.
(g) Describe the features of a spray-painting robot.
(h) Explain AI systems.

PART – B

(4 x 15 = 60)

- II. Comment on the various softwares used in CAD and explain how data exchange takes place between drafting and manufacture with an example. (15)
- OR**
- III. Explain flow line production systems with examples and state the advantages and disadvantages of each. (15)
- IV. What are the part characteristic that have been identified as being the most suited for numerical control applications? Explain with examples. (15)
- OR**
- V. Explain the structure and use of major CAPP languages. (15)
- VI. What are the various features a numerical control machining center is designed with to reduce non productive time? (15)
- OR**
- VII. With an example explain the error detection and recovery in an automated machining cell. (15)
- VIII. What are the general classification schemes adopted for a robotic manipulator? Explain with illustrations. (15)
- OR**
- IX. How are the sensors used in Industrial robotics classified? Describe briefly the various sensors used in robotics. (15)

