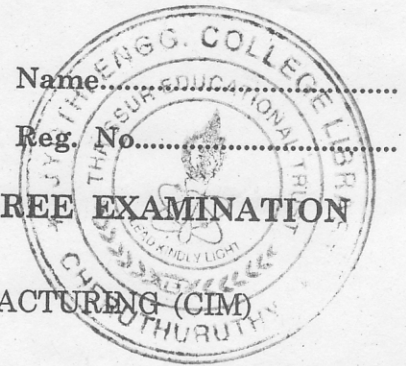


C 14743



SIXTH SEMESTER B.TECH. (ENGINEERING) DEGREE EXAMINATION
DECEMBER 2010

ME 04 603—COMPUTER INTEGRATED MANUFACTURING (CIM)
(2004 Admissions)

Time : Three Hours

Maximum : 100 Marks

Answer all questions.

Part A

- I. (a) Explain the different classification of NC system.
- (b) Explain the difference between NC and CNC.
- (c) Explain NC part programming with *one* example.
- (d) Describe point to point programming ?
- (e) What are the controls used in CIM explain.
- (f) Explain part families part classifications and coding.
- (g) Explain the principal components of FMS.
- (h) Explain On-line and Off-line programming.

(8 × 5 = 40 marks)

Part B

- II. (a) (i) Describe features of Incremental and absolute systems with *one* example.
(ii) Explain the design considerations of NC machine tools.
Or
(b) Explain the different methods of improving machine accuracy and productivity.
- III. (a) (i) Describe features of Incremental and absolute systems with *one* example.
(ii) Explain the design consideration of NC machine tools.
Or
(b) Explain the different methods of improving machine accuracy and productivity.
- IV. (a) Explain the following :—
(i) Automatic data capture , (ii) Barcode technology, (iii) Magnetic strip (iv) Optical character recognition.
Or
(b) (i) What is ASRS ? Example the principle and operation of an ASRS.
(ii) Explain automated storage system with simple sketch.
- V. (a) What are the various types of FMS layouts ? Explain them schematically.
Or
(b) (i) What are the various types of joints used for the construction of a robot manipulator ?
(ii) What are the industrial applications of robots ?

[4 × 15 = 60 marks]