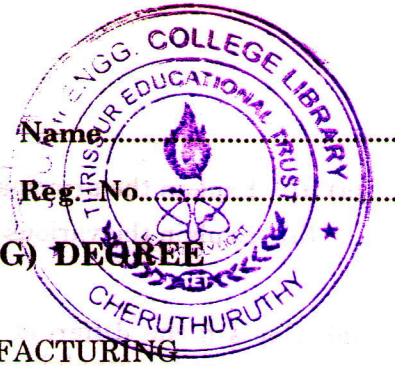C 58391   (Pages : 2)   Name.............................

SIXTH SEMESTER B.TECH. (ENGINEERING) DEGREE EXAMINATION, JUNE 2009

ME 04 603—COMPUTER INTEGRATED MANUFACTURING

(2004 admissions)

Time : Three Hours   Maximum : 100 Marks

Answer **all** *questions.*

Part A

1. (a) Give the advantages and limitations of NC.

   (b) Explain the difference between NC and CNC.

   (c) Explain NC part programming with one example.

   (d) Write notes on Programme Languages.

   (e) What are the controls used in CIM ? Explain.

   (f) Explain the different salient features of ASRS.

   (g) What are the benefits of FMS ?

   (h) Discuss various robotic types of programming languages.

                                          $(8 \times 5 = 40$ marks)

Part B

2. (a) (i) Explain Open loop and Closed loop system with one example.

      (ii) Explain the design considerations of NC machine tools.

Or

   (b) (i) Explain point to point and contouring systems with one example.

      (ii) Explain the different features of NC machine tools.

3. (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.

4. (a) Explain the following :—

      (i) Material handling in CIM ; (ii) AVG ; and (iii) Vehicle guidance.

Or

   (b) Explain the following :—

      (i) Automatic data capture.   (ii) Barcode technology.

      (iii) Magnetic strip.   (iv) Optical character recognition.

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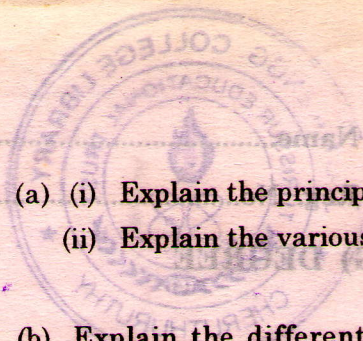
5. (a) (i) Explain the principal components of FMS.

     (ii) Explain the various types of material handling systems.

Or

(b) Explain the different types of robots used in Automobile industry and explain their performance capabilities.

(4 × 15 = 60 marks)