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APR-MAY

B. E. (Eighth Semester) Examination, 2020

(New Scheme)

(Mechatronics Engg. Branch)

AUTOMATED MANUFACTURING-II

Time Allowed : Three hours

Maximum Marks : 80

Minimum Pass Marks : 28

Note : Attempt all questions. Part (a) of each question is compulsory. Attempt any two parts from (b), (c) and (d) of each question.

1. (a) Brief about basic elements of an Automated system.

    (b) Describe different types of Automata and their application examples.

(c) Explain evolution & advantages of CIM.

(d) Discuss advance automata function of "Error detection & Recovery" with an example.

2. (a) Name the components used in CNC system.

(b) Classify different types of CNC machines & discuss one application in industry.

(c) Write a short note on Axis designator with neat sketches, in CNC machine.

(d) Describe different types of tools used in NC/ CNC systems.

3. (a) What is meant by form code?

(b) Explain about "Group Technology" and its features.

(c) Discuss "Production Flow Analysis" with various steps involved in it.

(d) Describe key machine concept in cellular manufacturing.

4. (a) Give full form of FMS, JIT, ASRS, AGV.

   (b) Explain objectives, types & benefits of FMS.

   (c) Enumerate basic component and advantages of ASRS.

   (d) Write short note on tool management and tool monitoring system in FMS.

5. (a) Define CAGC.

   (b) Discuss about CIM wheel and show all computerised element.

   (c) Explain about CAPP and its methods.

   (d) Bring out the difference between MRP and MRP II.