Roll No. | | | | | | | | | | | | |

Total No. of Pages : 02

Total No. of Questions : 08

M.Tech.(CAD/CAM) (E-IV) (Sem.–3)

COMPUTER AIDED PROCESS PLANNING

Subject Code : ME-520

M.Code : 23517

Time : 3 Hrs. Max. Marks : 100

INSTRUCTION TO CANDIDATES :

1. **Attempt any FIVE questions out of EIGHT questions.**
2. **Each question carries TWENTY marks.**

1. (a) Explain the various steps involved in the product design evaluation process with the help of a neat schematic diagram.

   (b) What is meant by process planning? How does computer aided process planning differ from traditional process planning?

2. (a) What is a part family? Describe any one part classification and coding system with the help of a suitable example.

   (b) What is production flow analysis? Explain the various steps of this approach.

3. (a) Describe the important features of the generative-type process planning. What are its benefits over the retrieval-type system?

   (b) Explain how information flow takes place in a shop floor control system. Also discuss the documents that are generated during the process.

4. With the help of a neat diagram, explain how MRP is developed and structured. What are the various inputs of MRP? What are the types of outputs generated from the MRP software?

5. (a) What are computer generated time standards? Describe the application of computer generated time standards in CAPP with the help of suitable examples.

   (b) Discuss the applications of Artificial Intelligence in automated process planning. with particular emphasis on machine and cutting tool selection.

6. What is the difference between data and information? Explain how the Communication oriented Production information and control system is developed for a manufacturing system. Describe its major elements.

7. (a) With the help of a neat schematic diagram, explain how the retrieval type computer-aided process planning system works.

   (b) Discuss how scheduling is important in a manufacturing system. What are the advantages of computerized production scheduling?

8. Write short notes on :

   (a) Operation sequence evaluation

   (b) Machining cell

   (c) Machinability data system

   (d) Capacity Planning

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.