CODE: 17CD03102

M. Tech I Year I Semester Regular Examinations, February 2018

COMPUTER INTEGRATED MANUFACTURING (CAD/CAM)

Time : 3 hours Max Marks : 60

Answer all **five** units. (5 x 12 = 60 Marks)

UNIT-I

1. (a) Briefly explain about three basic types of Automated Manufacturing Systems.

(b) Discuss in detail about any six Strategies for Automation.

OR

2. (a) Explain about any two configurations of Automated flow lines.

(b) Discuss any three methods of workpart Transfer Mechanisms.

UNIT-II

3. (a) Briefly describe the common available tape formats in part programming.

(b) Briefly explain about NC Part Programming Methods.

OR

4. (a) Discuss about basic components of an NC System.

(b) Explain about NC motion control systems.

UNIT-III

5. (a) Describe the important features of CNC systems.

(b) With a neat configuration, explain briefly about the DNC system.

OR

6. (a) What is the principle involved in Group Technology and List substantial benefits offered by Group Technology to companies.

(b) Briefly discuss the various steps involved in Production Flow Analysis.

UNIT-IV

7. (a) Explain briefly about various Work stations used in FMS.

(b) Briefly discuss about the Functions Performed by FMS Computer Control System.

OR

8. (a) Explain the advantages and disadvantages of Retrieval CAPP System.

(b) What are the Inputs of Material Requirement Planning? Explain them.

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UNIT-V

9. (a) Write short notes on Computer Process Control

(b) Explain briefly the Hierarchy of computers in manufacturing.

OR

10. (a) Explain briefly about Adaptive control machining systems.

(b) With the help of a block diagram, explain Adaptive control optimization system for a machine tool.

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