

Code No: D3310**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD****M.Tech II - Semester Examinations, March/April 2011****INTELLIGENT MANUFACTURING SYSTEMS****(ADVANCED MANUFACTURING SYSTEMS)****Time: 3hours****Max. Marks: 60****Answer any five questions****All questions carry equal marks**

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1. a) What are the various components of CIM & mention its advantages & limitations?
b) Describe the importance of CAD, CAPP & CAM and their effects on quality and quantity of production. [12]
2. a) What is the need of manufacturing automation protocol and technical office protocol in implementing the networks.
b) Differentiate between conventional and intelligent manufacturing systems. [12]
3. a) What are the advantages of knowledge based systems and mention its applications in CIM?
b) What are the various knowledge acquisition systems are used in practice and mention its draw backs? [12]
4. a) How the artificial neural networks are used in the automated manufacturing?
b) What are the various methods of CAPP and explain the retrieval type computer aided process planning systems? [12]
5. a) Differentiate between retrieval type and generative type computer aided process planning systems and mention their advantages.
b) Describe the knowledge based system an equipment selection (KBSEB) and mention the structure and problem solving. [12]
6. a) How the features of the component be recognized and sequence of operations for process planning be done?
b) What is the importance of group technology and mention the algorithms for cluster analysis method. [12]
7. a) Differentiate between cluster identification method and knowledge based group technology.
b) Describe the structure of knowledge base system for group technology. [12]
8. Answer the following:
a) Computer aided quality control.
b) System architecture & data flow.
c) Artificial intelligence in CIM. [12]
