

**B.E DEGREE EXAMINATIONS: APRIL/MAY 2014**

(Regulation 2009)

Seventh Semester

**MECHATRONICS ENGINEERING**

MCT121: Computer Integrated Manufacturing

**Time: Three Hours**

**Maximum Marks: 100**

**Answer all the Questions:-**

**PART A (10 x 1 = 10 Marks)**

1. CAD/CAM functions integrated with business function is \_\_\_\_\_
  - a) Manufacturing
  - b) CIM
  - c) Planning
  - d) CAPP
2. Which of the following is an element of CAD system?
  - a) Geometric modeling
  - b) Design analysis and optimization
  - c) Design review
  - d) All of the above
3. Which of the following is not a basic code structure in G.T?
  - a) Single code
  - b) Hierarchical code
  - c) Attribute code
  - d) Decision tree code
4. The simplest method of part classification method is
  - a) Visual inspection
  - b) OPit<sup>2</sup>
  - c) Production flow analysis
  - d) MICLASS
5. Which of the following is not an activity of production planning?
  - a) Aggregate production planning
  - b) Master production planning
  - c) Master production schedule
  - d) MRP
6. Elements of order scheduling is
  - a) Machine loading
  - b) Job sequencing
  - c) Both a and b
  - d) Quality checking
7. The hub of a new manufacturing enterprise wheel is
  - a) People
  - b) Teamwork
  - c) Organization
  - d) Customer
8. In star topology, each device has a delicate point to- point link to a central controller called
  - a) Computer
  - b) Server
  - c) Hub
  - d) None of a above
9. When the production quantity is high we should adopt

- a) Programmable automation
  - b) Flexible automation
  - c) Fixed automation
  - d) None of the above
10. OSI stands for
    - a) Open source interface
    - b) Open system interconnection
    - c) One single interface
    - d) None of the above

**PART B (10 x 2 = 20 Marks)**

11. What is a CIM system?
12. State four elements of CAD system?
13. What is group technology?
14. What are the various approaches in process planning?
15. What is PPC?
16. State any four objective of JIT?
17. State the types of networks
18. What is meant by IDEF models?
19. Define technical office protocol.
20. What is the function of transport layer?

**PART C (5 x 14 = 70 Marks)**

21. a) Draw the CIM wheel and discuss its various elements?  
**(OR)**  
b) Discuss in detail about the various elements of a CAD system?
22. a) Explain various types of facility layout with neat sketch.  
**(OR)**  
b) Discuss the two approaches of CAPP system in detail.
23. a) Discuss about materials requirements planning (MRP) in detail.  
**(OR)**  
b) Discuss about the various phase of shop floor control in detail.
24. a) Discuss about the CIMOSA in detail with figures.

**(OR)**

b) Draw the new manufacturing enterprise wheel and discuss about its various elements.

25. a) State and discuss about the various layers of OSI.

**(OR)**

b) Discuss in detail with neat sketches about DBMS architecture.

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