M.Tech. C.A.D./ C.A.M. (C.B.C.S. and Old C.B.S. Pattern) Sem-II

PCDS21 - Computer Integrated Manufacturing System

P. Pages : 1 **GUG/S/19/10985**

Time : Three Hours * 2 9 5 1 * Max. Marks : 70

Notes : 1. All questions carry equal marks.
2. Answer **any five** questions.
3. Due credit will be given to neatness.
4. Assume suitable data wherever necessary.

1. a) With the help of neat sketch explain the various components of CIM. **7**

b) "CIM is integrating CAD with CAM" Critically comment. **7**

2. a) What is FMS? When it is to be implemented? Discuss the various criterias to be satisfied by FMS. **8**

b) Explain the various types of work stations used in FMS. **6**

3. a) "Concurrent Engineering aims to reduce the lead time and product cost" Justify the statement. **6**

b) What is production flow analysis? Explain its procedural steps. **8**

4. a) Explain the term CAPP. Why it is needed? Discuss the benefits of it. **7**

b) What is nano manufacturing? Explain in detail. **7**

5. a) What is MRP? What are various inputs of MRP? **7**

b) What do you mean by Gross requirement and net requirement? **7**

6. a) "Elimination of waste is the sole purpose of JIT" Justify. **7**

b) Compare traditional purchasing with JIT purchasing. **7**

7. a) What is capacity planning? Also explain factors influencing effective capacity. **6**

b) Explain the terms: **8**
i) System capacity. ii) System efficiency.
iii) Actual capacity iv) Designated capacity

8. a) Explain the construction of various types of CMM. **7**

b) Explain: **7**
i) Plant scheduling
ii) KANBAN.

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