

Roll No. ....

**24484**

**B. Tech 7th Sem. (ME)**

**Examination – June, 2016**

**COMPUTER INTEGRATED MANUFACTURING**

**Paper : ME-425-F**

*Time : Three Hours ]*

*[ Maximum Marks : 100*

*Before answering the question, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard, will be entertained after examination.*

*Note : Attempt any five questions in all. Question number 1 is compulsory and selecting at least one question from each Section. Assume suitable data whenever required.*

1. (a) What are the component of CIM system ? 5
- (b) Explain fixed/floating zero in CNC. 5
- (c) Write briefly CIMS ? 5
- (d) Distinguish between CIM and FMS. 5

**SECTION – A**

2. What is Automation ? How it is related to CIM.  
Discuss the various automation strategies. 20

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3. Explain and differentiate the NC Part programming & APT language. 20

**SECTION - B**

4. Explain the various types of punched tapes used in NC machines and also discuss the various types of tape coding and format. 20

5. Discuss the various types of sensors used in robotics. Discuss the various applications of robots. 20

**SECTION - C**

6. What is FMS ? Explain types and limitations of FMS. Differentiate FMS and MHD. 20

7. (a) Discuss the various types contact and non contact inspection methods. 10

- (b) Explain the various methods of computer aided testing. 10

**SECTION - D**

8. Explain the various types of machine tools and their related equipments used in CIM, 20

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9. Write short notes on the following : 20

- (a) Direct numerical control.  
(b) Automation strategies  
(c) Automated guided vehicle system.

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