

# COMPUTER INTEGRATED MANUFACTURING

## LIST OF PRACTICALS

### 8<sup>TH</sup> SEMESTER 2010 BATCH

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#### **Practical No.1**

(Study & Research)

#### **Objective:**

Part a. Description of Background of CIM.

Part b. Model of CIM in an Industry from Real Life.

#### **Tools & Equipment:**

Computer with MS Office,

#### **Theory:**

Write Yourself

#### **Conclusion & Suggestions:**

Write Yourself

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#### **Practical No.2**

(Research Based)

#### **Objective:**

Introduction to 3 most useful & widely used CAD softwares around the world.

#### **Tools & Equipment:**

Computer with MS Office.

#### **Theory:**

Write Yourself

#### **Conclusion & Suggestions:**

Write Yourself

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## Practical No.3

(Research Based)

### Objective:

Introduction to 3 most useful softwares in CAM around the world

1. Auto CAD
2. Catia
3. Pro-E
4. Unigraphics( NX)
5. Solid Works

### Tools & Equipment:

Computer with Office and browsing support

### Theory:

Guidelines: Recommend soft wares are catia, Pro E and NX to be included in top 3.

Write down, comparison , characteristics and target market and main users etc.

Rest Write Yourself

### Conclusion & Suggestions:

Write Yourself (Further advancements and emerging softwares & market trend)

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## Practical No.4

(Study & Project Based)

### Objective:

Manual Part Programming on CNC Milling,

- i. Introduction to G-Codes & M-Codes
- ii. Formulation of part programming in cimco. Use ISO milling operations, and write your roll no. as 1333

### Tools & Equipment:

Computer with CIMCO Installed.

### Theory:

Write Yourself

### Conclusion & Suggestions:

Write Yourself

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## Practical No.5

(Research Based)

**Objective:**

Collecting & Studying the latest information on “Generation of Manufacturing Sequence (Process Plan)”  
Using desing information in computer for a given part in order to have quality product.  
(CAPP, Flow chart)

**Tools & Equipment:**

Lectures & other recommended literature.  
Computer with Office

**Theory:**

Write Yourself

**Conclusion & Suggestions:**

Write Yourself

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**Practical No.6**

(Project Based)

**Objective:**

Make an Part Model Using software NX.

**Tools & Equipment:**

Computer with NX 6 or version 8 Installed

**Theory:**

Write Yourself

**Conclusion & Suggestions:**

Write Yourself

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**Practical No.7****Objective:**

Group Technology

**Tools & Equipment:**

Computer with Office

**Theory:**

Write Yourself

**Conclusion & Suggestions:**

Write Yourself

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**Practical No.8**

(Project Based)

**Objective:**

To apply the cavity Milling Operations on a part made in NX.

**Tools & Equipment:**

NX Installed Computer

**Theory:**

Write Yourself

**Conclusion & Suggestions:**

Write Yourself

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**Practical No. 9**

(Study Based)

**Objective:**

Study of Computer Controlled Business Functions

**Tools & Equipment:**

Computer with office installed.

Recommended literature.

**Theory:**

Write Yourself

**Conclusion & Suggestions:**

Write Yourself

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## **Practical No. 10**

(Machine Based)

### **Objective:**

Demonstrate the characteristics & usage of Coordinate Measuring Machine.

### **Tools & Equipment:**

Study material

computer with office installed

### **Theory:**

Write Yourself

### **Conclusion & Suggestions:**

Write Yourself

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