## CIM & AUTOMATION LAB

Sub Code	: 10MEL 78	IA Marks : 25
Hrs/week	: 04	Exam Hours: 03
Total Lecture Hrs	: 42	Exam Marks: 50

## PART - A

CNC part programming using CAM packages. Simulation of Turning, Drilling, Milling operations. 3 typical simulations to be carried out using simulation packages like Master-CAM, or any equivalent software.

#### PART - B

(Only for Demo/Viva voce)

 FMS (Flexible Manufacturing System): Programming of Automatic storage and Retrieval system (ASRS) and linear shuttle conveyor Interfacing CNC lathe, milling with loading unloading arm and ASRS to be carried out on simple components.

Robot programming: Using Teach Pendent & Offline programming to perform pick and place, stacking of objects, 2 programs.

#### PART - C

# (Only for Demo/Viva voce)

Pneumatics and Hydraulics, Electro-Pneumatics: 3 typical experiments on Basics of these topics to be conducted.

# Scheme of Examination:

Two questions from Part A
Viva - Voce

- 40 Marks (20 Write up +20)
- 10 Marks

Total: 50 Marks

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H. O. D.