

Second Semester M.Tech Degree Examination-October 2014

2013 Scheme

Branch: Mechanical Engineering

Stream: Computer Integrated Manufacturing

MCD 2001: PRINCIPLES OF ROBOTICS AND APPLICATION

Time: 3hrs

Max marks:60

Instructions: Answer **Any Two** Questions from each module

All questions carry **equal** marks

MODULE-1

- 1.What are the different robotic drive systems and explain the relative merits and demerits of each system with figure.
- 2.Explain the different robotic controllers used in a Robotic system.
- 3.Briefly explain the different robotic configurations with fig and enumerate the applications of each type.

MODULE-2

- 4.Explain the significance of WAIT, SIGNAL AND DELAY commands in robot programming
- 5.What are the different considerations in gripper selection and design.
- 6.Explain with neat figures the different types of tactile sensors used in Robots.

MODULE-3

7. Explain the application of Industrial Robots in Material Transfer.
- 8.Briefly explain the robot language structure with different modes.
- 9.Explain the different generations of robot programming languages with examples and applications.