

School of Engineering

First Sessional Examination, Odd Semester (AS: 2023-24)

B. Tech: AI, CCML, IOTBC

[Year: 2] [Semester : 3]

Course Title: AI in Mechanical Engineering  
Course Code: BAI 3302

Max Marks: 30  
Time: 1 hr

*Instructions: Read the question Carefully.*

**SECTION 'A' Q.N.1. Attempt all parts of the following:**

CO Marks

a)	What is Artificial Intelligence ?	CO1	1
b)	Define Automation.	CO2	1
c)	Name Machine learning methods.	CO1	1
d)	What do you mean by Actuators.	CO2	1
e)	Define hydraulic Actuator.	CO1	1

**SECTION 'B' Q.N.2. Attempt any two parts of the following:**

CO Marks

a)	Define Control System with a block diagram.	CO2	7.5
b)	What are Sensors ? Explain with a example.	CO2	7.5
c)	How Machine Learning works?	CO1	7.5
d)	What are the Levels of Automation.	CO2	7.5

**SECTION 'C' Q.N.3. Attempt any One part of the following:**

CO Marks

	Briefly explain Analog to Digital Conversion.	CO2	10
b	How AI is used to improve upon a Mechanical system.	CO1	10
c	What is Machine Learning? How it's benefits can be used with AI in Mechanical Engineering.	CO1	10

*Table 1: Mapping between COs and questions*

COs	Questions Numbers	Total Marks
CO1	1(a), 1(c), 1(e), 2(c), 3(b), 3(c)	30.5
CO2	1(b), 1(d), 2(a), 2(b), 3(a)	27