

# School of Mechanical Engineering

Mechanical Engineering

ETE - Jun 2023

Time : 3 Minutes

Marks : 50

## Sem II - MCCR5008 - Mechatronics

*Your answer should be specific to the question asked*

*Draw neat labeled diagrams wherever necessary*

1. Distinguish between measurement system and control system K2 CO1 (2)
2. Provide a brief classification of various types of Amplifiers K2 CO2 (2)
3. Predict the factors to be considered for the selection of sensor. K2 CO1 (2)
4. Differentiate among microprocessor and microcontroller. K2 CO2 (2)
5. Explain about static characteristics of sensors briefly K2 CO2 (2)
6. Summarize various types of instruction set in 8085 microprocessor. Explain it. K4 CO5 (6)
7. Describe the process of Building up a model for an electrical system. Derive appropriate equations and draw appropriate diagram. K3 CO3 (5)
8. Compare AND, OR and NOT gates with the help of circuit diagrams and truth tables. K4 CO4 (5)
9. Explain the construction and working principle of AC servo motor. K4 CO4 (8)
10. Explain the basic elements of an automated guided vehicle following a magnetic track. K5 CO6 (8)
11. Describe about Mechatronics solution for pick and place robot. K4 CO5 (8)