

Academic year 2022-2023 (C

DEPARTMENT OF MECHANICAL ENGINEERING
CIE II

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|--------------|--|---------------|--------|
| Date | 22 nd August 2023 | Maximum Marks | 50 |
| Course Code | 22ES24E | Duration | 90 Min |
| Course Title | Fundamentals of Mechanical Engineering Sem: II | | |

Answer all the Questions.

| Sl. No. | Questions | M | BT |
|---------|--|----|----|
| 1. a | Highlighting the features, explain the various types of industrial automation | 7 | L2 |
| b | Explain the industrial applications of Robots | 3 | L3 |
| 2 | What are the basic configurations of an industrial robot? Explain them schematically. | 10 | L3 |
| 3. a | Discuss the operations involved in the sequential control of a microprocessor-based washing machine. | 7 | L3 |
| b | Plot the pictorial representation of Mechatronics by defining the term "Mechatronics". | 3 | L2 |
| 4 | Using schematic diagram explain the elements of computer numerical control systems | 10 | L2 |
| 5 | Mention the demerits of the following energy sources. a. Nuclear Energy b. Hydropower c. Fossil fuels | 10 | L2 |

BT-Blooms Taxonomy, CO-Course Outcomes, M-Marks

| Marks | Particulars | CO1 | CO2 | CO3 | CO4 | L1 | L2 | L3 | L4 | L5 |
|--------------|-------------|-----|-----|-----|-----|----|----|----|----|----|
| Distribution | Max Marks | 00 | 00 | 10 | 40 | 00 | 30 | 20 | 00 | 00 |