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SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR
(AUTONOMOUS)

M TECH II Year I Semester Regular Examinations Nov/Dec 2019

MECHATRONICS

(CAD/CAM)

Time: 3 hours

Max. Marks: 60

(Answer all Five Units **5 x 12 = 60** Marks)

UNIT-I

- 1 a Distinguish between intelligent machine and automatic machine? 6M
b What are the technologies are integrated in mechatronics system? 6M

OR

- 2 a Distinguish between intelligent machine and automatic machine on economic justifications. 6M
b What is latest research in mechatronics and its applications? 6M

UNIT-II

- 3 a Elaborate the general aspects of the electrical actuators. 6M
b What is motion control and list out types of controls? 6M

OR

- 4 a Explain electrical actuation system. 6M
b Draw popular control system configuration and explain it. 6M

UNIT-III

- 5 a Differentiate between Microprocessor and Microcontroller. 6M
b With neat diagram explain programmable logic controller (PLC). 6M

OR

- 6 a What are the Programmable logic control advantages and disadvantages? 6M
b With an example explain ladder logic used in PLC. 6M

UNIT-IV

- 7 a When would you store data in a DBMS instead of in operating system files and vice versa? 6M
b What is cad cam database? Compare step pulley with cad cam database? 6M

OR

- 8 a Name three popular DBMS and explain each DBMS. 6M
b What are the applications of Database technology? 6M

UNIT-V

- 9 a What is digital transducer and encoder. 6M
b What does Human-Machine Interface (HMI) mean? 6M

OR

- 10 a Explain analog sensor for motion and list 4 motion transducers. 6M
b What are the advantages of digital transducer? 6M

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