

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

B.Tech III Year I Semester Regular & Supplementary Examinations February-2024
INTRODUCTION TO MACHINE LEARNING

CSE(Artificial Intelligence and Machine Learning)

Time: 3 Hours

Max. Marks: 60

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

UNIT-I

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|-----|--|-----|----|----|
| 1 a | Describe about Machine Learning with their predictions? | CO1 | L2 | 6M |
| b | List the Machine Learning Algorithm in testing near to expected. | CO1 | L1 | 6M |

OR

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|-----|---|-----|----|----|
| 2 a | Define basic concepts in Machine Learning. | CO1 | L1 | 6M |
| b | Illustrate the concept of turning data into Probabilities using ML. | CO3 | L3 | 6M |

UNIT-II

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|-----|--|-----|----|----|
| 3 a | Explain about Linear Regression and its types. | CO3 | L2 | 6M |
| b | Explain about machine learning classification and its usage. | CO1 | L2 | 6M |

OR

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| 4 a | Describe about Multiple linear regression and MLR equations | CO2 | L1 | 6M |
| b | Explain about Application of linear regression in machine learning. | CO1 | L2 | 6M |

UNIT-III

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|-----|--|-----|----|----|
| 5 a | State and explain implementation of multilayer perceptron. | CO4 | L1 | 6M |
| b | What are the drawbacks of logistic regression? | CO4 | L1 | 6M |

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|-----|--|-----|----|----|
| 6 a | Define logistic regression. Explain types of logistic regressions. | CO3 | L1 | 6M |
| b | What are the advantages of multilayer perceptron? | CO4 | L1 | 6M |

UNIT-IV

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|---|---------------------------------|-----|----|----|
| 7 | State and explain the following | | | |
| a | Bernoulli density | CO4 | L1 | 4M |
| b | Multinomial density | CO4 | L1 | 4M |
| c | Gaussian density | CO4 | L1 | 4M |

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|---|--------------------------------|-----|----|-----|
| 8 | Write about bias and variance. | CO5 | L3 | 12M |
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UNIT-V

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|---|--------------------------------------|-----|----|-----|
| 9 | State and explain tuning complexity? | CO5 | L1 | 12M |
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OR

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|------|--|-----|----|----|
| 10 a | List the features of multivariate normal distribution. | CO6 | L1 | 6M |
| b | What is minimum mean square error estimation? | CO4 | L1 | 6M |

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