

MADANAPALLE INSTITUTE OF TECHNOLOGY & SCIENCE, MADANAPALLE
(UGC-AUTONOMOUS)
MCA II Year I Semester (R18) Supplementary End Semester Examinations - February 2022
(Regulations: R18)

INTRODUCTION TO MACHINE LEARNING

Time: 3Hrs

Max Marks: 60

Attempt all the questions. All parts of the question must be answered in one place only.
In Q.no 1 to 5 answer either Part-A or B only

- Q.1(A) i) Write any five real time applications of Machine learning? 12M
ii) How do we design a learning system?
- OR**
- Q.1(B) i) Discuss Bayes Theorem with example? 12M
ii) Explain the Bayesian Belief Network?
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- Q.2(A) Implement simple linear regression to predict profits for a food truck based on the 12M
population of the city that the truck would be placed in?
- OR**
- Q.2(B) i) Write the differences between LDA and PCA? 12M
ii) Explain the differences between regression problem and classification problem?
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- Q.3(A) i) Explain inference in Graphical models? 12M
ii) Explain about Markov models?
- OR**
- Q.3(B) Discuss the Markov Model conditional independence in Machine Learning? 12M
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- Q.4(A) i) Explain Hierarchical clustering in detail? 12M
ii) Discuss the real-world examples of hierarchical clustering?
- OR**
- Q.4(B) i) Discuss about the various categorization of clustering methods? 12M
ii) Discuss in detail about agglomerative clustering?
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- Q.5(A) i) What is a Multilayer Neural Network? 12M
ii) Write advantages and disadvantages of ANN?
- OR**
- Q.5(B) Discuss the differences between Machine learning and Deep Learning? Discuss 12M
Application of ANN.

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