

Roll No.

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M.Tech. (CSE Engg) E-I (2018 Batch) (Sem.-1)

## MACHINE LEARNING

Subject Code : MTCS-105-18

M.Code : 75155

Time : 3 Hrs.

Max. Marks : 60

### INSTRUCTIONS TO CANDIDATES :

1. Attempt any FIVE questions out of EIGHT questions.
2. Each question carries TWELVE marks.

Q1. Define Machine Learning. Explain the basic machine learning workflow. Discuss the advantages and challenges of machine learning.

Q2. What is the curse of Dimensionality? Differentiate between the parametric and non-parametric models for classification and regression.

Q3. What is meant by clustering in machine learning? Discuss the K-means clustering algorithm in detail.

Q4. Write short notes on :

- a) General mixture model
- b) Matrix factorization techniques

Q5. Write in detail about various parameters that are used to evaluate a machine learning algorithm.

Q6. What is the need for scalable machine learning? Explain the concepts of online and distributed machine learning.

Q7. Discuss various machine learning models used for time-series analysis.

Q8. Write a short note on how machine learning algorithms can be applied to IoT data?

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.