Total No. of Questions: 8] [Total No. of Printed Pages: 2

Roll No.

## CS-8003(1)-CBGS

## **B.E. VIII Semester**

Examination, December 2020

## Choice Based Grading System (CBGS) Machine Learning

Time: Three Hours

Maximum Marks: 70

*Note:* i) Attempt any five questions.

- ii) All questions carry equal marks.
- 1. a) Explain K-Means algorithm with suitable example.
  - b) Discuss in briefly about time series in ML.
- 2. a) Give detailed discussion on decision trees and boosting.
  - b) Explain linear quadratic regulation.
- 3. a) Explair working principle of Independent components and sis.
  - b) Give short notes on Real world ML.
- 4. a) Explain how back propagation algorithms helps in classification.
  - b) Explain the steps in developing a machine learning algorithm.
- 5. a) What is the goal of support vector machine? How to compute the margin?
  - b) Explain Bayes theorem.

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- 6. a) Explain Hidden Markov model.
  - Discuss in brief elements of reinforcement learning.
- Explain different association rules with algorithms. 7. a)
  - Explain principle component analysis with algorithm. b)
- 8. Write short notes on any two.
  - Big data and map reduce

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