BD18002028

**M.TECH** 



**Registration No:** 

**Total Number of Pages : 01** 

#### AR-18

# M.TECH 1<sup>ST</sup> SEMESTER EXAMINATIONS(BACK), NOV/DEC 2019 CSE, MCSPE1041 DATA SCIENCE

Time: 3 Hours

### The figures in the right hand margin indicate marks.

# PART-A

(10 X 2=20 MARKS)

Max Marks: 70

#### 1. Answer the following questions.

(a) What is the difference between simple linear and multiple linear regressions?

(b) Why missing value treatment is required?

(c) Write down the difference between numerical and categorical data.

(d) Define Data exploration.

(e) Differentiate Data balancing and Data shuffling.

(f) Difference between Planar Encoding and Retinal Encoding.

(g) Which factors are responsible for the effectiveness of an SVM?

(h) Differentiate between Volume visualization and Information visualization.

(i) What is Tableau?

(j) Why should we use Data Science?

# PART-B

### Answer any five questions from the following.

2. Explain in details about the processes involved in Data Science with the help of a neat diagram.

3. Give a detail description of SVM algorithm. How to implement SVM in Python?

4.

(a) What are the key terminologies of SVM?

(b) Explain Bayes' estimator parametric density estimation.

5.

(a) How does exploratory data analysis differ from summary analysis?

(b) Explain Simple Linear regression.

6. Explain the application of Data Science in detail.

7.

(a) Describe the role of python in Data Science.

(b) Briefly explain about different types of data visualization techniques.

8. Write Short notes on

(a) Random Forest

(b) Scikit-learn

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(5 X 10=50 MARKS)