

**GUJARAT TECHNOLOGICAL UNIVERSITY****ME – SEMESTER –I-(New) EXAMINATION – SUMMER 2019****Subject Code: 3710219****Date: 15/05/2019****Subject Name: Data Science****Time: 02:30 PM TO 05:00 PM****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1** (a) Difference between Data science and Big data? Importance of Data science **07**  
 (b) What is Data science process? Explain types of data? **07**
- Q.2** (a) What are APIs? explain elements of APIs and categories of APIs **07**  
 (b) Explain data Exploration? **07**
- OR**
- (b) Explain challenges of data storage and data management? **07**
- Q.3** (a) What is machine learning and why should you care about it? where machine learning is used in the data science process? **07**  
 (b) Explain the problems you face when handling large data? **07**
- OR**
- Q.3** (a) Use of linear regression in Machine learning? Explain multiple linear regression **07**  
 (b) Explain types of Machine learning? **07**
- Q.4** (a) Explain Naive Bayes classifier? **07**  
 (b) Why do we use SVM in machine learning? **07**
- OR**
- Q.4** (a) Explain in brief types of Data visualization **07**  
 (b) Compare Data visualization and data analytics **07**
- Q.5** (a) How Python tool used in machine learning? **07**  
 (b) What is CLT? why is it important? **07**
- OR**
- Q.5** (a) List out visualization techniques and explain any two **07**  
 (b) Explain application of data science? **07**

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