Date: 21ST March 2020 Name:

**Quiz 01 – 5 marks**

Q1. What is the naïve assumption in NB classifiers?

Q2. What is the zero probability problem in Naïve Bayes?

Q3. What are the different types of Naïve Bayes Classifier?

Q4. What are the evaluation metrics for linear regression?

Q5. Name the 3 different types of machine learning.

A1. Naïve bayes Classifier uses Conditional independence assumption.

That is the features in the dataset are mutually exclusive (independent of each other).

A2. This is the disadvantage of Naïve Bayes that we assume the data is independent; however it is almost impossible that the model will contain predictors that are entirely independent. This causes zero probability problem which disables the model to make any predictions.

A3. The different types of Naïve Bayes Classifier are:

1. GaussianNB: Probability of X given Y follow normal distribution
2. BernoulliNB: Efficient when all the features all binary-valued.
3. MultinomialNB: Data follows the multinomial distribution fashion

A4. 1) Root Mean Square Error

2) Mean square Error

3) Mean Absolute Error

4) Mean absolute Percentage Error

A5. 1) Supervised

2) Unsupervised

3) Reinforcement