



# AJEENKYA

## D Y PATIL UNIVERSITY

### End Term Examination (December 2019)

School: School of Engineering

Program: BCA DS

Course: Machine Learning

Course Code: CSC235

Semester: III

Max Marks: 30

Duration (mins): 60 Min

- Note- 1. Figures to the right indicates full marks**  
**2. Attempt any three questions.**

- Q1) a) Define Machine learning and Explain unsupervised learning with diagram. (5)**  
**b) List all Machine Learning models and Explain Logical model in detail. (5)**
- Q2) a) Define Linear Regression with equation. (2)**  
**b) Define SVM and explain various ways how to identify the right hyper-plane with diagram. (8)**
- Q3) a) Decision Tree vs. Random forest. (2 Points) (2)**  
**b) Write a formula for class Entropy (2)**  
**c) What is the population standard deviation for the numbers: 75, 83, 96, 100, 121 and 125? (6)**
- Q4) a) Draw and Explain what is overfitting and Underfitting. (5)**  
**b) Differentiate between Classification and Clustering (5 Points) (5)**
- Q5) a) Define Parametric and non-parametric (2)**  
**b) Define:**  
1. Correlation 2. Variance 3. Bagging 4. Bootstrap Averaging **(8)**

