



# AJEENKYA

## D Y PATIL UNIVERSITY

### End Term Examination (December 2019)

School: School of Engineering

Program: BTECH IT-DS

Course: Machine Learning and algorithms-1

Course Code: CSC337

Semester: V

Max Marks: 30

Duration (mins) : 60 Min

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

- Q1) a)** Define bagging with diagram. (5)  
**b)** Define boosting and Explain different types of correlation with neat diagram. (5)
- Q2) a)** Define Machine learning. (2)  
**b)** List and explain different types of machine learning with advantages and disadvantages. (8)
- Q3) a)** Decision tree vs Random forest ( 2 points) (2)  
**b)** Define support in Apriori algorithm. (2)  
**c)** A booklet has 12 pages with the following numbers of words: 271, 354, 296, 301, 333, 326, 285, 298, 327, 316, 287 and 314. What is the standard deviation number of words per page? (6)
- Q4) c)** Solve by using k-means clustering. Where  $k=2$   
{2,3,4,10,11,12,20,25,30} (5)  
**d)** Define clustering and different types of clustering. (5)

**Q5) a)** Define linear regression with its equation.

**(2)**

**b)** Solve by using Decision Tree method.

**(8)**

<b>Cloths</b>	<b>Look</b>	<b>fabric</b>	<b>Buy</b>
Shirt	Good	Cotton	No
Shirt	Bad	Cotton	No
Shirt	Bad	linen	No
Trouser	Good	Cotton	No
Trouser	Good	linen	No
Trouser	Bad	linen	Yes
Trouser	Bad	Cotton	Yes
T-shirt	Good	Cotton	Yes
T-shirt	Bad	linen	Yes
T-shirt	Bad	Cotton	Yes

**\*\*\*\*\* ALL THE BEST\*\*\*\*\***