



# DHANEKULA INSTITUTE OF ENGINEERING & TECHNOLOGY

(Autonomous)

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## DAY TO DAY ASSESSMENTS

Name of the program: B.Tech in IT

Academic year: 2025-26

Year & Semester : III-II

Name of the Course: ML

Name of the Exam : C.T-IV

Day to Day Assessment weightage: **100%**

MaxMarks :**30M**

Date: 18.02.2026

**Course outcome: D23C311.3-** Develop the models based on decision trees and Bayes classifier concepts

- 1) The following table presents a dataset of 10 objects, with attributes Color, Type, Origin, and the “class”, whether the customer who bought was satisfied or not:

S.No.	Color	Type	Origin	Satisfied?
1	Red	Casual	Domestic	Yes
2	Red	Casual	Domestic	No
3	Red	Casual	Domestic	Yes
4	Yellow	Casual	Domestic	No
5	Yellow	Casual	Imported	No
6	Yellow	Formal	Imported	Yes
7	Yellow	Formal	Imported	Yes
8	Yellow	Formal	Domestic	No
9	Red	Formal	Imported	No
10	Red	Casual	Imported	Yes

We want to classify a new object with the following properties:

- Color = Red, Origin = Domestic, and Type = Formal

Use Naïve Bayes algorithm and tell the class of this test instance

**D23C311.3-Applying-PO3-10M**

- 2) Explain Regression Based on Decision Trees in detail with suitable example

**D23C311.3-Applying-PO3-10M**

- 3) Explain the Multi-Class Classification and Class Conditional Independence

**D23C311.3-Understanding-PO2-10M**

### Scheme of valuation:

1. Problem solving	10M
2. Regression Based on Decision Trees	10M
3. Multi-Class Classification	5M
Class Conditional Independence	5M