



**DHANEKULA INSTITUTE OF ENGINEERING & TECHNOLOGY**

**(Autonomous)**

**GANGURU::VIJAYAWADA – 521 139**

**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-III

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

MaxMarks :**30M**

Date: 30.01.2026

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

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- 1) Explain the Classification, Impurity Measures, Properties, Regression Based on Decision Trees, with example **D23C311.3-Understanding-PO2-10M**
  - 2) Explain Random Forests for Classification and Regression, with example **D23C311.3-Applying-PO3-10M**
  - 3) Explain the Bias-Variance Trade-off. How does it affect the performance of a machine learning model? Provide an example to illustrate the trade-off **D23C311.3-Understanding-PO2-10M**

**Scheme of valuation:**

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|---|-----|
| 1. Classification                                   | 2M  |
| Impurity Measures                                   | 2M  |
| Properties  | 2M  |
| Regression Based on Decision Trees                  | 2M  |
| Example   | 2M  |
| 2. Random Forests for Classification and Regression | 10M |
| 3. Bias-Variance Trade-off                          | 5M  |
| Affect on performance of a machine learning model   | 3M  |
| Example   | 2M  |