

T.Y.B.Tech Computer Science & Engg., Semester: V, A.Y.: 2023–2024 Course Name: Machine Learning (Theory), Course Code: UCSC0502

ISE 1, Component 1: Assignment Part-1

Instructions:

- Assignment Part-1 is based on Unit 1.
- Students must maintain a *Separate Notebook* to write the assignments.
- Attempt all questions, complete the assignment in written form, and get it signed by your course teacher.
- The assignment checking will take place during the lab sessions from 22 to 26 August 2023.

Q.1	Define machine learning and describe the key steps in the machine learning process.
Q.2	Explain supervised machine learning with an example.
Q.3	Explain unsupervised machine learning with an example.
Q.4	List different types of machine learning and briefly compare supervised learning vs unsupervised learning.
Q.5	Discuss different performance measures in machine learning for classification and regression tasks. Use appropriate examples.
Q.6	Write a note ona) Data preprocessing in machine learning.b) Data visualization in machine learning.c) Real-world applications of machine learning.