S.No	Unit	
1	I	Why machine learning?
2	I	Point out Examples of unsupervised learning.
3	I	Summarize on Examples of supervised machine learning .
4	I	Discriminate on Knowing Your Task and Knowing Your Data.
5	I	Appraise on Python?
6	I	Defend scikit-learn.
7	II	Appraise on Classification .
8	II	Summarize on Regression.
9	II	Categorize on Generalization.
10	II	Distinguish between Overfitting and Underfitting .
11	II	Explain k-Neighbors classification.
12	II	Explore on Linear Models.
13	III	Discriminate Types of Unsupervised Learning.
14	III	Prioritize the Challenges in Unsupervised Learning.
15	III	Analyze on Applying Data Transformations.
16	III	Discuss about Agglomerative Clustering.
17	III	Compare Clustering Algorithms.
18	III	Evaluate Clustering Algorithms.
19	IV	Explore One-Hot-Encoding (Dummy Variables)
20	IV	Evaluate Numbers Can Encode Categoricals
21	IV	Define Binning with Suitable example.
22	IV	Express on Discretization.
23	IV	Distinguish Linear Models and Trees.
24	IV	Compare Interactions and Polynomials.
25	V	Differentiate Structured string data and Text data.
26	V	Investigate Bag-of-Words for Movie Reviews.
27	V	Express Stopwords.
28	V	Point out Rescaling the Data with tf–idf
29	V	Predict Investigating Model Coefficients
30	V	Compare Stemming and Lemmatization.

S.No	Unit	
1	I	Explore on Problems Machine Learning Can Solve
2	I	Categorize the applications of Machine Learning.
3	I	Differentiate Supervised Learning and Unsupervised learning.
4	I	Predict on Installing scikit-learn.
5	I	Generalize on Essential Libraries and Tools in Python.
6	I	Compare Python 2 and Python 3.
7	II	Differentiate Classification and Regression.
8	II	Assess Relation of Model Complexity to Dataset Size.
9	II	Explore on Sample dataset.
10	II	Evaluate Kernelized Support Vector Machines
11	II	Summarize on Neural Networks.

12	II	Measure on Uncertainty Estimates from Classifiers.
13	III	Explore on Preprocessing and Scaling.
14	III	Express on Dimensionality Reduction.
15	III	Explain on Feature Extraction.
16	III	Interpret on Manifold Learning.
17	III	Discuss on Different kinds of preprocessing
18	III	Summarize on DBSCAN.
19	IV	Discuss on Categorical Variables
20	IV	Predict Univariate Nonlinear Transformations
21	IV	Assess Automatic Feature Selection
22	IV	Explore Model-Based Feature Selection
23	IV	Measure Iterative Feature Selection
24	IV	Defend Utilizing Expert Knowledge
25	V	Summarize the Types of Data Represented as Strings.
26	V	Analyse Sentiment Analysis of Movie Reviews
27	V	Interpret Representing Text Data as a Bag of Words
28	V	Summarize Bag-of-Words with More Than One Word (n-Grams)
29	V	Explore on Advanced Tokenization, Stemming, and Lemmatization
30	V	Classify Topic Modeling and Document Clustering

S.No	**Unit**	
1	I	Case study on Classifying Iris Species.
2	I	Hypothesize Measuring Success: Training and Testing Data
3	I	Distinguish between Python 2 Versus Python 3 with suitable example.
4	II	Analyze on Predicting Probabilities
5	II	Role play on Uncertainty in Multiclass Classification
6	II	Predict on Ensembles of Decision Trees
7	III	Case study on K-means Clustering.
8	III	Case study on DBSCAN.
9	III	Compare various Clustering methods and explain in detail.
10	IV	Case study on Automatic feature Selection.
11	IV	Case study om Model Based Feature Selection
12	IV	Case study on Iterative Feature Selection.
13	V	Case study on Latent Dirichlet Allocation.
14	V	Case Study on Sentiment Analysis of Movie Reviews.
15	V	Case Study on Lemmatization.