Question Bank Based on Bloom's Taxonomy

Unit 1: Introduction to Data Analytics

Remembering: Define Data Analytics and list its types.

Understanding: Explain the difference between Data Analytics and Data Analysis.

Applying: Classify real-world examples into different types of data analytics.

Analyzing: Analyze the role of a Data Analyst versus a Data Scientist.

Evaluating: Evaluate the significance of Data Analytics in business decision-making.

Creating: Design a basic framework for a data analytics lifecycle.

Unit 2: Introduction to Python Fundamentals and Statistics

Remembering: List different levels of data measurement.

Understanding: Explain the concept of central tendency and dispersion.

Applying: Apply Python to calculate mean and standard deviation.

Analyzing: Analyze the distribution of sample means using Python.

Evaluating: Evaluate the importance of confidence interval estimation.

Creating: Create a Python script for calculating statistical measures on a dataset.

Unit 3: Probability and Types of Testing

Remembering: Define probability and its types.

Understanding: Explain the concept of sampling distribution.

Applying: Apply hypothesis testing on a real-world dataset.

Analyzing: Analyze the results of an ANOVA test.

Evaluating: Evaluate the significance of Chi-square test in categorical data.

Creating: Create a decision tree to test hypotheses using sample data.

Unit 4: Regression, Classification and Clustering

Remembering: List the types of regression techniques.

Understanding: Explain the working of logistic regression.

Applying: Apply K-Means clustering on a sample dataset.

Analyzing: Analyze the performance of a classification model using a confusion matrix.

Evaluating: Evaluate decision tree classification against logistic regression.

Creating: Create a model that combines regression and classification for prediction.

Unit 5: Data Visualization Using PowerBI

Remembering: Define PowerBI and its main components.

Understanding: Explain the steps to get data from different sources in PowerBI.

Applying: Apply data transformations in PowerBI.

Analyzing: Analyze different types of visualizations for their effectiveness.

Evaluating: Evaluate a PowerBI dashboard for its usability.

Creating: Create an interactive dashboard using PowerBI for a given dataset.