

Database: SQL Basics, Relational Algebra, Normalization, ER

Models.

Machine Learning: Bias-Variance Tradeoff, Cross-Validation, Ridge

Regression, SVM.

Solve machine learning

practice problems using

Python (e.g., Decision Trees).

Week 4

AI: Informed & Uninformed Search (BFS, DFS, A*), Logic

(Propositional, Predicate).

Data Science: Data Preprocessing (Normalization, Sampling),

Dimensionality Reduction (PCA).

Machine Learning: Neural Networks (Multi-layer Perceptron),

Clustering (K-Means, Hierarchical).

Implement clustering and PCA

in Python for hands-on

practice.

Week 5

Mock Tests: Full-length tests (3 tests during the week).

Focus on time management,

review mistakes, and revise

weak areas.

Final 2 Days

Revision: Quick formulas, cheat sheets, targeted practice questions.

Build confidence and simulate
real exam scenarios.