Recommendation Systems

Important Questions for Minor-I

1) What are recommender systems, and how do they function in various applications?

2) What are the different types of recommender systems, and how do they differ from one another?

3) Explain Content-Based Filtering in detail with examples.

4) Explain Collaborative Filtering in detail with examples.

5) What is Hybrid Filtering, and how does it improve recommendation accuracy?

6) What are the key components of a Content-Based Recommender System, explain using TF-IDF and cosine similarity for movie recommendation.

7) Explain the role of Text Preprocessing in Content-Based Systems with an example.

8) How are user profiles built in content-based recommender systems? Explain using explicit ratings and implicit feedback.

9) Discuss Gini Index, Entropy, Chi-Square Statistic, and Normalized Deviation as feature selection and weighting techniques.

10) What is Nearest Neighbour Classification, and how is it used in recommender systems?

11) Explain the working principles of User-Based Collaborative Filtering (UBCF). How does it leverage user similarities to generate recommendations?

12) How does UBCF handle missing ratings in a user-item matrix? Discuss different approaches to filling in missing values and their impact on recommendation accuracy.