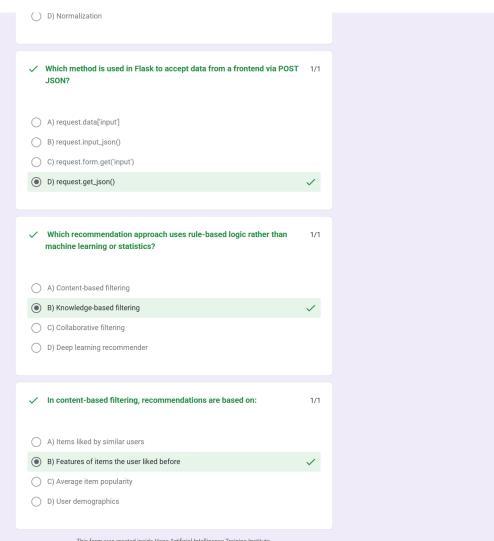# 2.Advanced ML (Week 8.1 to 10) - Set -2

Total points **15/15**

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✓ **What is the correct route decorator for handling GET requests in Flask?** 1/1

○ A) @app.get('/endpoint')

◉ B) @app.route('/endpoint', methods=['GET']) ✓

○ C) @app.url('/endpoint', method='get')

○ D) @flask.route('/endpoint', 'GET')

✓ **Which of the following is a disadvantage of content-based recommendation systems?** 1/1

○ A) Cold start for new users

○ B) Cold start for new items

◉ C) Dependency on metadata ✓

○ D) Lack of scalability

✓ **Which type of recommender system is more prone to the "popularity bias"?** 1/1

○ A) Content-based filtering

◉ B) Collaborative filtering ✓

○ C) Knowledge-based filtering

○ D) Context-aware filtering

✓ **What is the goal of feature selection in machine learning?** 1/1

○ A) To select features with the highest variance

○ B) To increase the number of features

◉ C) To remove redundant and irrelevant data ✓

○ D) To increase dimensionality

✓ **Which metric is NOT commonly used to evaluate recommendation systems?** 1/1

○ A) Precision

○ B) Recall

○ C) RMSE

◉ D) F1 Score ✓

✓ **In collaborative filtering, similarity between users or items is often calculated using:** 1/1

○ A) Cosine similarity

○ B) Euclidean distance

○ C) Jaccard similarity

○ D) All of the above ✓

✓ **The main drawback of using wrapper methods for feature selection is:** 1/1

○ A) They are inaccurate

○ B) They require data scaling

◉ C) They are computationally expensive ✓

○ D) They don't work on categorical data

✓ **Which unsupervised technique is commonly used to reduce dimensionality but not considered feature selection?** 1/1

◉ A) PCA ✓

○ B) RFE

○ C) Chi-Square

○ D) Lasso

✓ **Which of the following methods selects features by evaluating the impact of each on a model's accuracy?** *1/1

○ A) Variance Threshold

◉ B) Recursive Feature Elimination ✓

○ C) Pearson Correlation

○ D) Mutual Information

✓ **In a recommendation system, what does "implicit feedback" mean?** 1/1

○ A) Numerical product rating

◉ B) Clicks, views, and purchase history ✓

○ C) User surveys

○ D) Item description

✓ **The difference between dimensionality reduction and feature selection is:** 1/1

◉ A) Dimensionality reduction creates new features; feature selection selects existing ones ✓

○ B) Feature selection creates new features

○ C) Both are the same

○ D) Feature selection cannot be used for model training

✓ **Which technique ranks features based on how useful they are for predicting the target variable?** 1/1

○ A) PCA

○ B) Feature Scaling

◉ C) Feature Importance (from trees) ✓

○ D) Normalization

✓ **Which method is used in Flask to accept data from a frontend via POST JSON?**   1/1

○ A) request.data['input']

○ B) request.input_json()

○ C) request.form.get('input')

◉ D) request.get_json()   ✓

✓ **Which recommendation approach uses rule-based logic rather than machine learning or statistics?**   1/1

○ A) Content-based filtering

◉ B) Knowledge-based filtering   ✓

○ C) Collaborative filtering

○ D) Deep learning recommender

✓ **In content-based filtering, recommendations are based on:**   1/1

○ A) Items liked by similar users

◉ B) Features of items the user liked before   ✓

○ C) Average item popularity

○ D) User demographics

Google Forms