



Recommender Systems

Assignment- Week 1

TYPE OF QUESTION: MCQ/MSQ

Number of questions: 20

Total marks:

QUESTION 1:

Long tail phenomena is a typical characteristic of recommender system datasets. The x-axis of this distribution is characterised by _____ whereas the y-axis represents _____.

- a) Product, Popularity
- b) **Popularity, Product**
- c) Popularity, Customer
- d) Customer, Popularity

Correct Answer: b

Explanation: Refer to Week 1 Lecture 1 Slide 8

QUESTION 2:

Click-through rate is often used to measure the business value of a recommender system. This is based on the assumption that

- a) Lower clicks lead to lower levels of user retention, which, in turn, reduces the cost to the company
- b) Lower clicks lead to few but loyal customers, which, in turn, often directly translates into business value
- c) More clicks lead to lower investment in customer relationship management, which, in turn, reduces the cost to the company
- d) **More clicks indicate that the recommendations were more relevant for the users**

Correct Answer: d

Explanation: Refer to Week 1 Lecture 1 Slide 15



QUESTION 3:

Cold start problem arises when there is _____ data to provide recommendations

- a) **Lack of**
- b) Large volume of
- c) Misleading user
- d) Misleading item

Correct Answer: a

Explanation: Refer to Week 1 Lecture 2 Slide 3

QUESTION 4:

Which of the following recommender systems exploits the concept of longtail phenomena while recommending items.

- a) Content based
- b) Collaborative filtering based
- c) Context based
- d) **Popularity based**

Correct Answer: d

Explanation: Refer to Week 1 Lecture 2 Slide 15

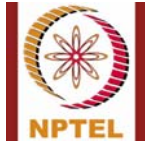
QUESTION 5:

In a user-user collaborative filtering system, the similarity between two users is computed using _____ data.

- a) Use demographics
- b) Item description data
- c) **Rating matrix**
- d) All of the above

Correct Answer: c

Explanation: Refer to Week 1 Lecture 3 Slide 6



QUESTION 6:

The prediction accuracy of Trust-based recommendation systems is likely to improve as it uses both rating matrix and trust matrix to deal with _____ problem.

- a) **Data sparsity**
- b) Data integrity
- c) User rating bias
- d) Item trust bias

Correct Answer: a

Explanation: Refer to Week 1 Lecture 3 Slide 14

QUESTION 7:

Which of the following could be an example of implicit data in the context of a movie recommender system.

- a) The text review created by the user
- b) Feedback rating by the user after watching a movie.
- c) **User rating derived from how much time is spent on a movie page**
- d) All of the above

Correct Answer: c

Explanation: Refer to Week 1 Lecture 4 Slide 8

QUESTION 8:

A credit card company uses the *monthly expenditure* of a customer to decide the credit limit. The *monthly expenditure* is in which of the following scales of measurement?

- a) Nominal
- b) Ordinal
- c) Interval
- d) **Ratio**

Correct Answer: d

Explanation: Refer to Week 1 Lecture 4 Slide 11-18



QUESTION 9:

The middle line in a box plot represents _____ of the data.

- a) IQR
- b) Mean
- c) Mode
- d) **Median.**

Correct Answer: d

Explanation: Refer to Week 1 Lecture 5 Slide 10

QUESTION 10:

The diagonal entries in a covariance matrix represent

- a) Mean
- b) Correlation
- c) Covariance
- d) **Variances**

Correct Answer: d

Explanation: Refer to Week 1 Lecture 5 Slide 16

*****END*****