

Reg No.: _____

Name: _____

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY
B.Tech Degree S6 (S, FE) Examination January 2024 (2019 Scheme)

Course Code: AIT312
Course Name: RECOMMENDATION SYSTEM

Max. Marks: 100

Duration: 3 Hours

PART A

Answer all questions, each carries 3 marks.

Marks

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|----|--|-----|
| 1 | List any two purposes of recommendation system? | (3) |
| 2 | How is a collaborative recommendation system categorized? | (3) |
| 3 | Differentiate between Dependent default and derived default? | (3) |
| 4 | Explain what is TF-IDF? | (3) |
| 5 | Explain about feature combination hybrids | (3) |
| 6 | What are the limitations of hybridization strategies? | (3) |
| 7 | How can we differentiate Confidence and Trust? | (3) |
| 8 | Explain evaluation paradigms? | (3) |
| 9 | What is product push attack and nuke attack? | (3) |
| 10 | Specify the effect of base recommendation algorithm. | (3) |

PART B

Answer one question from each module, each carries 14 marks.

Module I

- 11 a) Describe the two types of outputs generated with pure collaborative approaches that takes matrix of given user–item ratings as the only input? (14)

OR

- 12 a) Explain similarity based retrieval and other text classification methods? (14)

Module II

- 13 a) How can we deal un-satisfiable requirements and empty results sets? (7)
- b) Explain QuickXPlain algorithm that calculates one conflict set at a time for a given set of constraints. (7)

OR

- 14 a) Describe Critiquing algorithms (14)

Module III

- 15 a) Explain about feature combination hybrids. (7)
b) Describe feature augmentation hybrid. (7)

OR

- 16 a) Explain about different parallelized hybridization strategies. (7)
b) Differentiate between cascade hybrids and meta- level hybrids? (7)

Module IV

- 17 a) Explain about offline and online evaluations in recommender systems. (7)
b) Describe the general goals of evaluation design (7)

OR

- 18 a) Discuss about the design issues in offline recommender evaluation. Illustrate with a case study. (7)
b) Explain about accuracy metrics in offline evaluation. (7)

Module V

- 19 a) How do you quantify attack impact on recommender system? (7)
b) Discuss about different attacks on recommender system. (7)

OR

- 20 a) Discuss about different methods available to detect attacks on recommender system (7)
b) Explain how to design robust recommendation algorithms. (7)
