Roll No. | | | | | | | | | | | | **Total No. of Pages : 02**

Total No. of Questions : 09

B.Tech. (CSE) (AI&ML) (Sem–6)

RECOMMENDER SYSTEM

Subject Code : BTAIML605-20

M.Code : 93404

Date of Examination : 20-06-2023

Time : 3 Hrs. **Max. Marks : 60**

INSTRUCTIONS TO CANDIDATES :

1. **SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.**
2. **SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.**
3. **SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.**

SECTION-A

1. Write briefly :

a) Classification

b) Convex Optimization

c) Domain specific challenges

d) Collaborative filtering

e) Overfitting

f) Item-based CF

g) Context aware

h) Multi-armed bandits

i) Reinforcement learning

j) Decision models.

SECTION-B

2. Define recommender systems. Differentiate between traditional and non personalized RS.

3. List out the advantages and drawbacks of content based recommender system.

4. Write a brief note on item representation methods for learning user profiles.

5. Explain the use of mathematical optimization in collaborative filtering RS.

6. Write briefly about social network diffusion awareness in recommender system.

SECTION-C

7. Describe in detail similarities and differences of recommender system with task assignment in mobile crowd sensing.

8. Define long-tail principle. How it is used in content based recommender system? Explain.

9. Describe in detail components of neighborhood methods used for CFRS.

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.