**POORNIMA UNIVERSITY, JAIPUR**

**END SEMESTER EXAMINATION, April 2023**

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|  | **3BT6225** | Roll No. | Total Printed Pages: 2 |
| **3BT6225** |  |
| B. Tech. III Year VI- Semester (Back) End Semester Examination, April 2023  **(AI)** | |
| **BAI06110 : Recommender system** | | | |

# Time: **3** Hours. Total Marks: **60**

Min. Passing Marks: **21**

Attempt **five** questions selecting one question from each Unit. There is internal choice from Unit I to Unit V. Marks of each question or its parts are indicated against each question / parts. Draw neat sketches wherever necessary to illustrate the answer. Assume missing data suitably (if any) and clearly indicate the same in the answer.

Use of following supporting material is permitted during examination for this subject.

# **1.--------------------------Nil--------------------** **2.------------------Nil-----------------------**

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|  |  | **UNIT-I (CO1)** | **Marks** | **Bloom Level** |
| **Q.1** | **(a)** | In a recommender system project manvendra require to explain what is knowledge based recommender system cover its limitation with suitable example. | **(6)** | **analyzing** |
|  |  |  |  |  |
|  | **(b)** | Bhanu is working as data scientist .In a training program he have to explain what is recommender system, advantage and disadvantage of recommender system with suitable example. | **(6)** | **evaluating** |
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|  |  | **OR** |  |  |
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| **Q.2** | **(a)** | Yogesh is working as data scientist. In his company he got a project of recommender system how he will evaluate recommender system explain with suitable technique. | **(6)** | **evaluating** |
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|  | **(b)** | Neha is working as data scientist in TCS. she have to his team explain why HCI play important role in Recommender system with Suitable example | **(6)** | **evaluating** |
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|  |  | **UNIT-II (CO2)** |  |  |
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| **Q.3** | **(a)** | What is the meaning of “Cold start” in collaborative filtering explain with suitable example | **(6)** | **understanding** |
|  |  |  |  |  |
|  | **(b)** | Sunil is working as project head in data science project What do you mean by ANN? How it is used in data mining process explain with suitable example. | **(6)** | **analyzing** |
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|  |  | **OR** |  |  |
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| **Q.4** | **(a)** | Why is Dimensionality Reduction required? Explain Backward Feature Elimination and Principal Component Analysis with suitable example. | **(6)** | **evaluating** |
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|  | **(b)** | Write a short note (i) K- means Clustering (ii) Association rule mining | **(6)** | **understanding** |
|  |  |  |  |  |
|  |  | **UNIT-III (CO3)** |  |  |
| **Q.5** | **(a)** | Ram is working as trainer in software company .In his training he told How represent item in content based RS and also discuss problem of Item representation with suitable example. | **(6)** | **evaluating** |
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|  | **(b)** | As a project manager explain your team What social tagging recommender system is and also cover Bayes probabilistic approach to inductive learning in RS? | **(6)** | **evaluating** |
|  |  | **OR** |  |  |
|  |  |  |  |  |
| **Q.6** | **(a)** | A project manager explain your team explain how Content-based Filtering play important role in RS? Explain with suitable example? | **(6)** | **analyzing** |
|  |  |  |  |  |
|  | **(b)** | Priyank is working as a trainer of RS. In a workshop he have explain different method of learning user profile with suitable example | **(6)** | **understanding** |
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|  |  | **UNIT-IV (CO4)** |  |  |
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| **Q.7** | **(a)** | In a Company presentation you have to discuss why dimensionality reduction methods required in Recommender System Explain with suitable example | **(6)** | **evaluating** |
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|  | **(b)** | In a RS project hariom is discussing about few concept with team member how he will explain What is z score? Why it is required in neighbourhood based RS? Calculate z score for given value 14, 8,10, 14, 17 | **(6)** | **applying** |
|  |  |  |  |  |
|  |  | **OR** |  |  |
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| **Q.8** | **(a)** | You are working on project of online mooc based recommender system? How you will create a Neighbourhood-based Recommendation? Explain with suitable example | **(6)** | **Creating** |
|  |  |  |  |  |
|  | **(b)** | Sikha is working on a RS project .you are working as a project head there she want to know why rating normalization used in RS explain her with suitable example? | **(6)** | **evaluating** |
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|  |  | **UNIT V (CO5)** |  |  |
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| **Q.9** | **(a)** | Write a short note  (i)collaborative Filtering (ii)recommendation based on Ranking | **(6)** | **understanding** |
|  |  |  |  |  |
|  | **(b)** | Ishan is working as data scientist in Microsoft. He have to give a training that cover How multi-mode recommender system work with suitable example? | **(6)** | **evaluating** |
|  |  |  |  |  |
|  |  | **OR** |  |  |
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| **Q.10** | **(a)** | What is Tag Acquisition? How it is play important role in recommender system explain with suitable example? | **(6)** | **evaluating** |
|  |  |  |  |  |
|  | **(b)** | Mohit is working as data assignment he have to explain content-Based Social Tagging Recommendation system his team with suitable example | **(6)** | **evaluating** |