



# INSTITUTE OF AERONAUTICAL ENGINEERING

(Autonomous)

Dundigal, Hyderabad - 500 043

## COMPUTER SCIENCE AND ENGINEERING

### TUTORIAL QUESTION BANK

<b>Course Name</b>	Web Intelligence And Algorithms
<b>Course Code</b>	BCS201
<b>Class</b>	M. Tech I Yr II Sem
<b>Branch</b>	Computer Science Engineering
<b>Year</b>	2017 - 2018
<b>Team of Instructors</b>	Ms. K.Radhika, Associate Professor, CSE

### OBJECTIVES

To meet the challenge of ensuring excellence in engineering education, the issue of quality needs to be addressed, debated and taken forward in a systematic manner. Accreditation is the principal means of quality assurance in higher education. The major emphasis of accreditation process is to measure the outcomes of the program that is being accredited.

In line with this, faculty of Institute of Aeronautical Engineering, Hyderabad has taken a lead in incorporating philosophy of outcome based education in the process of problem solving and career development. So, all students of the institute should understand the depth and approach of course to be taught through this question bank, which will enhance learner's learning process.

### PART – A (SHORT ANSWER QUESTIONS)

S. No	QUESTIONS	Blooms taxonomy level	Course outcome
<b>UNIT – I</b>			
<b>INTRODUCTION TO WEB SEARCHING</b>			
1.	Explain about the historical perspectives of web searching?	Remember	1
2.	List out the Intelligent Web Applications?	Remember	2
3.	Explain about Web Searching?	Understand	3
4.	What is Indexing?	Understand	2
5.	Explain about Page Ranking?	Remember	2
6.	List out the steps for avoiding dead ends?	Understand	2
7.	Explain about spider traps?		
8.	Explain about Sensitive Page Rank?	Remember	4
9.	Explain about Ranking Document?	Understand	3
10.	Explain about evolution of web 2.0?	Remember	4

**PART – B (LONG ANSWER QUESTIONS)**

S. No	Question	Blooms Taxonomy Level	Course Outcome
<b>UNIT – I</b> <b>INTRODUCTION AND WEB SEARCHING</b>			
1.	Explain about the Page Ranking?	Understand	3
2.	Explain about the Evolution of Web 2.0?	Remember	3
3.	Explain briefly about Web searching?	Understand	3
4.	Write about Intelligent Web Crawling?	Apply	4
5.	Write the difference between Precision and Recall?	Apply	4
6.	Write about the use of page rank in a search Engine?	Understand	3
7.	Explain the steps for avoiding Dead ends?	Apply	3
8.	Write about the historical perspective of web searching?	Understand	3
9.	Explain about Link Analysis?	Understand	4
10.	Explain briefly about spider traps?	Understand	4

**PART – C (PROBLEM SOLVING AND CRITICAL THINKING QUESTIONS)**

S. No	Question	Blooms Taxonomy Level	Course Outcome
<b>UNIT – I</b> <b>INTRODUCTION AND WEB SEARCHING</b>			
1.	Explain about the various web applications?	Apply	8
2.	Explain the step by step process for getting best search results in searching techniques?	Apply	9
3.	Explain the efficient computation of Page Rank?	Apply	8
4.	Write about the web crawling?	Apply	9
5.	Write about Sensitive Page Rank?	Apply	8

**PART – A (SHORT ANSWER QUESTIONS)**

S. No	Question	Blooms Taxonomy Level	Course Outcome
<b>UNIT – II</b> <b>CREATING SUGGESTIONS AND RECOMMENDATIONS</b>			
1.	Write about Collaboration Filtering?	Apply	9
2.	Define the Blog?	Apply	8
3.	What is Data Normalization?	Understand	9
4.	Define Wikis?	Remember	8
5.	What is Correlation coefficient?	Understand	9
6.	Define Message Boards?	Understand	3
7.	Define Roundoff Error?	Apply	3
8.	What is Complete Positive Correlation?	Understand	3
9.	Define Root Mean Square Error?	Apply	4
10.	What is the Rank Correlation?	Apply	4

**PART – B (LONG ANSWER QUESTIONS)**

S. No	Question	Blooms Taxonomy Level	Course Outcome
<b>UNIT – II</b> <b>CREATING SUGGESTIONS AND RECOMMENDATIONS</b>			
1.	Explain the concept of distance and similarity?	Apply	9
2.	Explain briefly about Collaborative Filtering?	Apply	8
3.	Explain the steps used for calculating the similarity?	Understand	9
4.	Explain how do recommendation engines works?	Apply	8
5.	Explain the working of Recommendation based on similar users?	Remember	9
6.	Explain the procedure of extracting the content Message Boards?	Understand	8
7.	Explain the working of Recommendation based on similar items?	Understand	3
8.	Explain the procedure of extracting the content by using Blog?	Understand	3
9.	Explain about the recommendation systems based on contents?	Apply	3
10.	Explain the steps for creating suggestions?	Apply	4

**PART – C (PROBLEM SOLVING AND CRITICAL THINKING QUESTIONS)**

S. No	Question	Blooms Taxonomy Level	Course Outcome
<b>UNIT – II</b> <b>CREATING SUGGESTIONS AND RECOMMENDATIONS</b>			
1.	Explain how similarities between two users can be measured?	Apply	9
2.	Explain the Recommendations based on content?	Apply	8
3.	Design the code for calculating the rating involved in data renormalization and rescaling?	Understand	9
4.	Explain about Anscombe's Quarter?	Apply	8
5.	Design the code for recommendations for MoiveLensDelphi recommender based on the MovieLens dataset?	Apply	9
6.	Explain the improved implementation of recommending by combining recommenders?	Apply	8

**PART – A (SHORT ANSWER QUESTIONS)**

S. No	Question	Blooms Taxonomy Level	Course Outcome
<b>UNIT – III</b> <b>LEARNING FROM USER INTERACTIONS</b>			
1.	Define Tags?	Remember	3, 4
2.	Define Tags related metadata?	Understand	4
3.	Define Hybrid Recommender systems?	Understand	3
4.	What is Tag Generation?	Remember	3
5.	Define Targeted Search?	Remember	3
6.	What is Hybrid recommender system?	Remember	4
7.	Define Dynamic Navigation?	Remember	4

8.	Define constraints?	Remember	4
9.	Define Tag Cloud?	Remember	3
10.	Define Leveraging tags?	Understand	3

### PART – B (LONG ANSWER QUESTIONS)

S. No	Question	Blooms Taxonomy Level	Course Outcome
<b>UNIT – III</b> <b>LEARNING FROM USER INTERACTIONS</b>			
1.	Explain the process of extracting intelligence from tags?	Apply	3
2.	Explain about the Tag related metadata?	Apply	3
3.	Explain about the Tag Generation?	Apply	3
4.	Explain briefly about Leveraging Tags?	Apply	4
5.	Explain about the Recommendations systems?	Apply	4
6.	Explain about the Dynamic Navigations?	Apply	3
7.	Explain about the Constraint based Recommendation systems?	Apply	3
8.	Explain in detail about the Targeted Searches?	Understand	3
9.	Explain about the Hybrid based Recommendation systems?	Apply	4
10.	Explain the Dynamic navigation using tag clouds?	Apply	4

### PART – C (PROBLEM SOLVING AND CRITICAL THINKING QUESTIONS)

S. No	Question	Blooms Taxonomy Level	Course Outcome
<b>UNIT – III</b> <b>LEARNING FROM USER INTERACTIONS</b>			
1.	Explain about Collaborative Recommender Systems?	Apply	3
2.	Explain briefly about Hybrid based Recommendation systems?	Apply	3
3.	Explain about the seven techniques used in Hybridization techniques?	Understand	3
4.	Explain about the constraint based recommendation systems?	Apply	4
5.	Explain briefly about the Recommendations based on various tags?	Apply	4

### PART – A (SHORT ANSWER QUESTIONS)

S. No	Question	Blooms Taxonomy Level	Course Outcome
<b>UNIT – IV</b> <b>RECOMMENDER SYSTEM TYPES</b>			
1.	Define Collaborative?	Remember	3, 4
2.	Define Demographic recommendation system?	Understand	4
3.	Define Weight Hybrid Recommender?	Understand	3
4.	Explain about content based systems?	Remember	3
5.	Explain Switching Hybrid Recommender?	Apply	3
6.	Define Filtering Research?	Apply	3
7.	Explain about Mixed Hybrid Recommender?	Understand	3

8.	Explain about knowledge based recommender?	Apply	4
9.	Define Collaborative?	Apply	4
10.	Define Netflix?	Apply	3

#### **PART – B (LONG ANSWER QUESTIONS)**

S. No	Question	Blooms Taxonomy Level	Course Outcome
<b>UNIT – IV</b> <b>RECOMMENDER SYSTEM TYPES</b>			
1.	Explain about Collaborative Recommendation Systems?	Understand	3
2.	Explain about the Demographic based Recommendation systems?	Understand	3
3.	Explain about Hybrid based Recommendation Systems?	Understand	3
4.	Explain about the Utility based Recommendation Systems?	Understand	4
5.	Explain about the Switching Hybrid Recommendation system?	Apply	4
6.	Explain about the Weighted Hybrid Recommendation Systems?	Apply	3
7.	Explain Briefly about the Utility based Recommendation System?	Apply	3
8.	Explain about any two types of Recommendation systems?	Understand	3
9.	Explain Briefly about Collaborative Recommendation Systems?	Apply	4
10.	Explain about the types of Hybrid Recommendation system?	Apply	4

#### **PART – C (PROBLEM SOLVING AND CRITICAL THINKING QUESTIONS)**

S. No	Question	Blooms Taxonomy Level	Course Outcome
<b>UNIT – III</b> <b>LEARNING FROM USER INTERACTIONS</b>			
1.	Explain about Recommendation systems?	Understand	3, 4
2.	Explain about Constraint based Recommender Systems?	Understand	4
3.	Explain about Neighborhood based Recommender Systems?	Understand	3
4.	Explain about Hybrid based Recommender Systems?	Understand	3
5.	Explain about Mixed Hybrid based Recommender Systems?	Understand	3

#### **PART – A (SHORT ANSWER QUESTIONS)**

S. No	Question	Blooms Taxonomy Level	Course Outcome
<b>UNIT – V</b> <b>DATA MINING METHODS IN RECOMMENDATION SYSTEMS</b>			
1.	Define Data Mining?	Remember	3, 4
2.	Write some association rules used in mining techniques?	Understand	4
3.	Define Classifiers?	Understand	3
4.	Explain Web 3.0?	Remember	3
5.	Define Semantic Web?	Remember	3
6.	Explain adwords problem?	Understand	3
7.	Define Clustering?	Remember	3
8.	Explain about Next Generation Web?	Understand	3
9.	Define Matching problem?	Understand	3
10.	Explain about Online and offline algorithms?	Remember	4

**PART – B (LONG ANSWER QUESTIONS)**

S. No	Question	Blooms Taxonomy Level	Course Outcome
<b>UNIT – V</b> <b>DATA MINING METHODS IN RECOMMENDATION SYSTEMS</b>			
1.	Explain about the various data mining methods in recommendation systems?	Apply	3
2.	Explain the procedure for evaluating recommender systems?	Apply	3
3.	Explain about the process of advertising on web?	Apply	3
4.	Explain about association rule mining techniques?	Apply	4
5.	Explain about Web 3.0 and the semantic web?	Apply	4
6.	Explain the Evaluation of Recommender Systems by Explaining F-Score, Recall and Precision?	Remember	3
7.	Write about the matching problem, adwords problem?	Understand	3
8.	Explain briefly about the online algorithm?	Understand	3
9.	Explain the types of clustering techniques?	Remember	4
10.	Explain briefly about the offline algorithm?	Remember	4

**PART – C (PROBLEM SOLVING AND CRITICAL THINKING QUESTIONS)**

S. No	Question	Blooms Taxonomy Level	Course Outcome
<b>UNIT – V</b> <b>DATA MINING METHODS IN RECOMMENDATION SYSTEMS</b>			
1.	Explain the Evaluation of Recommender Systems by Explaining F-Score?	Remember	3
2.	Explain briefly about the online and offline algorithms?	Understand	3
3.	Explain about the Web 3.0 and Semantic Web?	Understand	3
4.	Explain the Steps for evaluating the recommender systems?	Remember	4
5.	Explain the data mining methods used in the recommendation systems?	Remember	4

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