Name of Examination: B.Tech Mid Semester Examination 2023

Branch: **CSE** Semester: **8th**

Subject Name: **Data Mining** Subject Code:

Time: 2 hours **Roll NO.**

Instruction:

1. *There are six questions in this paper. Answer any four out of six questions.*
2. *Question No. 1 is compulsory.*
3. *The marks are indicated in the right-hand margin. Each question carries equal marks.*
4. *Draw the necessary neat and clean diagram wherever applicable.*

Full Marks: 20

Section A

Q1. Attempt all questions: **(1X5 = 5 Marks)**

a Which of the following refers to the problem of finding abstracted patterns (or structures) in the unlabeled data? **CO1**

(i) Supervised learning

(ii) Unsupervised learning

(iii) Hybrid learning

(iv) Reinforcement learning

b Which of the following is NOT a data mining task? **CO1**

(i) Classification

(ii) Regression

(iii) Association rule mining

(iv) Natural language processing

c Which of the following is NOT a type of data mining? **CO1**

(i) Descriptive

(ii) Predictive

(iii) Prescriptive

(iv) Diagnostic

D KDD stands for **CO2**

(i) Knowledge Discovery Database

(ii) Knowledge Definition Data

(iii) Knowledge Data Discovery

(iv) Knowledge Data Definition

d Which of the following is NOT a benefit of data mining? **CO1**

(i) Improved decision making
(ii) Reduced costs
(iii) Increased customer satisfaction
(iv) Improved compliance

Section B

Answer any three questions

(2.5+2.5=5 Marks)

2. (a) What is data warehouse? Differentiate between operational database system and data warehouse. (CO1)
   (b) Explain with diagram three-tier data warehouse architecture. (CO2)

(2.5+2.5=5 Marks)

3. (a) Describe the steps involved in the data mining when viewed as a process of knowledge discovery (KDD Model). (CO2)
   (b) Explain differences between OLAP and OLTP. (CO2)

(5 Marks)

4. A database has five transactions. Let min sup D 60% and min conf D 80%:

TID	Items-bought
T100	{M,O,N,K,E,Y}
T200	{D,O,N,K,E,Y}
T300	{M,A,K,E}
T400	{M,U,C,K,Y}
T500	{C,O,O,K,I,E}

Find all frequent itemsets using Apriori algorithm. (CO3)

(2.5+2.5=5 Marks)

5. (a) Describe data Mining Model in brief. (CO1)
   (b) How is data warehouse different from a database? How are they similar? (CO1)

(5 Marks)

6. With a neat sketch explaining the architecture of a data warehouse. (CO2)

Total nos. of printed pages: 1 Roll No: | | | | | | | | | |

MOTIHARI COLLEGE OF ENGINEERING, MOTIHARI

Even Semester Session 2022-23 Mid Semester Exam

B. Tech. 8th Semester, Computer Science and Engineering

BLOCKCHAIN

Time: 2 Hrs. Maximum Marks 20

Section A

Q1. Attempt all questions: **(1X5 = 5 Marks)**

a	What is the objective of a Bitcoin ?	CO 1
b	What is a Block in Blockchain ?	CO 2
c	Who can create Blocks in Blockchain ?	CO 3
d	What are the popular applications of Blockchain ?	CO 2
e	Differentiate between Bitcoin and Blockchain.	CO 1

Section B

Q2-Q4 Attempt all questions: **(5X3 = 15 Marks)**

Q2	i)	What are the problems in Transaction Ordering process in Bitcoin ? Explain the solution.	CO 2
		OR	
	ii)	What are the problems in Single Central Controller in Bitcoin ? Explain the solution.	CO 2
Q3	i)	Explain the concept of Proof-of-work in Blockchain.	CO 3
		OR	
	ii)	Explain the concept of Block Rewards in Blockchain.	CO 3
Q4	i)	Explain the basic concept of Blockchain.	CO 1
		OR	
	ii)	Explain the concept of Longest Chain Rule in Blockchain.	CO 4

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MOTIHARI COLLEGE OF ENGINEERING, MOTIHARI

Name of Examination:	B.Tech Mid Semester Examination July 2023			
Branch:	CSE		Semester:	VIII
Subject Name:	Ad-hoc and Sensor Networl:		Subject Code:	105819
Time:	2 hours	Full Marks: 20	Roll NO.	

Instruction:

a. *There are four questions in this Paper. Question No. 1 is compulsory.*
b. *Students have to attempt either part (a) or (b) from remaining questions. The marks are indicated in the right-hand margin.*
c. *Draw the necessary neat and clean diagram wherever applicable.*
d. *Write to the point only, writing unnecessary and irrelevant things may lead to reduction of marks.*

Q. 1 (a) Define handoff.

(b) What is multicasting?

(c) What is hidden terminal problem? Explain in brief.

(d) List the application of Ad-Hoc networks.

(e) What is hybrid routing?

Q. 2 (a) List the classification of MAC protocol.

OR

(b) What is contention-based protocol?

Q. 3 (a) Write down the issues of designing a MAC protocol for Ad-Hoc networks.

OR

(b) State the difference between cellular network and Ad-Hoc Wireless network.

Q. 4 (a) Discuss Ad-Hoc and sensor network in detail.

OR

(b) Explain the design issues in Ad Hoc networks.

Total nos. of printed pages: 2 Roll No: | | | | | | | | | | |

MOTIHARI COLLEGE OF ENGINEERING, MOTIHARI

Even Semester Session 2022-23 Mid Semester Exam

B. Tech. 8th Semester, Computer Science Engineering

EMBEDDED SYSTEM

Time: 2 Hrs. Maximum Marks 20

Section A

Q1. Attempt all questions: **(1X5 = 5 Marks)**

a	What is ARM status bit after subtracting 1from 0.	CO2
b	What is meaning of instructions (i) ADC r0, r1, r2 (ii) SUB r0, r1, r2	CO2
c	What is meaning of instructions (i) RSB r0, r1, r2 (ii) RSC r0, r1, r2	CO2
d	Define an Embedded system? Give examples?	CO1
e	List out the difference between an embedded system and general purpose computer	CO1

Section B

Q2-Q4 Attempt all questions: **(5X3 = 15 Marks)**

Q2	i)	(a) Discuss the instruction set available in ARM processor with example. (b) Discuss about the special features of SHARC processor as compared with ARM processor.	[2.5M X2=5M]	CO2
		OR		
	ii)	Briefly explain about different data operations used in ARM processor	[5.0M]	CO2
Q3	i)	(a) What is an embedded system? List out its applications. Explain why the processors play a vital role in embedded systems.	[5.0M]	CO1
		OR		
	ii)	Explain the characteristics of embedded system? What are the quality attributes in embedded system?	[5.0M]	CO1
Q4	i)	Write a program for X = (a + b) – c and store the value of X at register R3.Also explain ARM processor.	[2.5M X2=5M]	CO2
		OR		
	ii)	Write a program for Y = a * (b+ c) also store the value of Y at register R4. Also explain SHARK processor.	[2.5M X2=5M]	CO2