Shri Shankaracharya Institute of Professional Management & Technology Department of Information Technology

Class Test – II

Session- Jan-Jun, 2023 **Month-**April 2023

Sem- 8th **Subject-** Introduction to Data Science **Code-** D033831(033)

Time Allowed: 2 hrs. **Max Marks:** 40

Note: - ***Attempt any 5 questions. Each question carries equal marks.***

Q.N.	Questions	Marks	Levels of Bloom's taxonomy	COs
Q1	Explain the significance of Heap Map.	[8]	Understand	CO3
Q2	Describe Analysis of Variance (ANOVA). Also describe its types in detail.	[8]	Understand	CO3
Q3	Following are the marks obtained by students in a test exam. Class: 20-30, 30-40, 40-50, 50-60, 60-70, 70-80, 80-90 f: 4, 6, 10, 17, 11, 9, 3 Calculate the standard deviation and it's coefficient by a. Direct method b. Deviation method	[8]	Apply	CO3
Q4	List out the different application areas of Polynomial Regression.	[8]	Understand	CO4
Q5	Find the linear regression equation from the following data. Also predict the value of Y when X=15. X: 1, 2, 3, 4 Y: 3, 4, 5, 9	[8]	Apply	CO4
Q6	Explain Residual plot and Distribution plot? How to use Residual Plots for regression model validation?	[8]	Understand	CO4

Best of Luck

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Best of Luck

Shri Shankaracharya Institute of Professional Management & Technology

Department of Information Technology

Class Test – II Session- Jan – June 2023 Month - April

Sem- B. Tech. 8th Subject- Blockchain **Code-** D033818(022)

Time Allowed: 2 hrs. Max Marks: 40

*Note: - **Attempt any 5 questions. All questions carry equal marks.***

Q.N.	Questions	Marks	Levels of Bloom's taxonomy	COs
1.	Explain about the concept of Ethereum and Ethereum Virtual Machine in detail.	[8]	Understand	CO4
2.	Demonstrate about the concept of mathematical properties of the Bitcoin and also explain it with an example.	[8]	Apply	CO5
3.	Explain Smart Contracts. Discuss the various attacks on smart Contracts in detail.	[8]	Understand	CO4
4.	Discuss about the concept of Hyperledger implementation on Ethereum.	[8]	Understand	CO4
5.	Describe Bitcoin Consensus and Bitcoin Block in detail.	[8]	Understand	CO5
6.	Discuss about the various application of Blockchain.	[8]	Understand	CO5

Shri Shankaracharya Institute of Professional Management & Technology

Department of Information Technology

Class Test – II Session- Jan – June 2023 Month –April

Sem- B. Tech. 8th Subject- Blockchain **Code-** D033818(033)

Time Allowed: 2 hrs. Max Marks: 40

*Note: - **Attempt any 5 questions. All questions carry equal marks.***

Q.N.	Questions	Marks	Levels of Bloom's taxonomy	COs
1.	Explain about the concept of Ethereum and Ethereum Virtual Machine in detail.	[8]	Understand	CO4
2.	Demonstrate about the concept of mathematical properties of the Bitcoin and also explain it with an example.	[8]	Apply	CO5
3.	Explain Smart Contracts. Discuss the various attacks on smart Contracts in detail.	[8]	Understand	CO4
4.	Discuss about the concept of Hyperledger implementation on Ethereum.	[8]	Understand	CO4
5.	Describe Bitcoin Consensus and Bitcoin Block in detail.	[8]	Understand	CO5
6.	Discuss about the various application of Blockchain.	[8]	Understand	CO5

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Shri Shankaracharya Institute of Professional Management & Technology

Department of Information Technology

Class Test – II Session- Jan – Jun 2023 Month- April

Sem- IT 8th, Subject- Big Data Analytics, Code- D033811(033)

Time Allowed: 2 hrs. Max Marks: 40

Note: - All Questions are compulsory.

<table>
<tr><th>Q.N.</th><th>Questions</th><th>Marks</th><th>Levels of Bloom's taxonomy</th><th>COs</th></tr>
<tr><td>A.</td><td>Solve the below problem using Apriori Algorithm.

<table><tr><th>Transantion ID</th><th>Items</th></tr><tr><td>T1</td><td>Jam, Bread, Butter</td></tr><tr><td>T2</td><td>Jam, Bread</td></tr><tr><td>T3</td><td>Jam, Lime Soda, Waffers</td></tr><tr><td>T4</td><td>Waffers, Lime Soda</td></tr><tr><td>T5</td><td>Waffers, Butter</td></tr><tr><td>T6</td><td>Jam, Lime Soda, Waffers</td></tr></table>
Find the frequent itemsets, and generate association rules on this. Assume that minimum support threshold (s = 33.33%) and minimum confident threshold (c = 60%).</td><td>[4]</td><td>Apply</td><td>CO3</td></tr>
<tr><td>B.</td><td>A database has five transactions. Let min-support = 60_ and min- confidence = 80%. Find all frequent item sets by using Apriori Algorithm.

<table><tr><th>Transantion ID</th><th>Items</th></tr><tr><td>T-1000</td><td>M,O,N,K,E,Y</td></tr><tr><td>T-1001</td><td>D,O,N,K,E,Y</td></tr><tr><td>T-1002</td><td>M,A,K,E</td></tr><tr><td>T-1003</td><td>M,U,C,K,Y</td></tr><tr><td>T-1004</td><td>C,O,O,K,E</td></tr></table></td><td>[4]</td><td>Apply</td><td>CO3</td></tr>
<tr><td>C.</td><td>What are association rules?</td><td>[8]</td><td>Understand</td><td>CO3</td></tr>
<tr><td>D.</td><td>List out various types of hybrid recommendation approches.</td><td>[8]</td><td>Understand</td><td>CO3</td></tr>
<tr><td>E.</td><td>Enlighten decaying window algorithm with an example.</td><td>[8]</td><td>Understand</td><td>CO4</td></tr>
<tr><td>F.</td><td>Give five applications of Real-Time Analytics with suitable example.</td><td>[8]</td><td>Analyze</td><td>CO4</td></tr>
</table>