15CS651

## th Semester B.E. Degree Examination, July/August 2021 Data Mining and Data Warehousing

Time: 3 hrs.

Max. Marks: 80

## Note: Answer any FIVE full questions.

1	a.	What is Data Warehousing? Explain multitier architecture with neat diagram.	(08 Marks)	
	b.	Describe multidimensional data model and a cube with neat sketches.	(08 Marks)	
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2	a.	Explain OLAP operations with examples.	(10 Marks)	
	b.	What are Data warehouse models? Explain.	(06 Marks)	
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3	a.	Explain OLAP server Architecture?	(09 Marks)	
	b.	What is data mining? What are motivating challenges of data mining? Explain.	(07 Marks)	
	0.	That is data mining. That are motivating charlenges of data mining. Expansion	(0,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1	
4	a.	Explain different types of data in Data mining.	(10 Marks)	
	b.	Explain data preprocessing steps.	(06 Marks)	
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5	a.	Develop the Apriori Algorithm for frequent itemset generation.	(08 Marks)	
	b.	Consider the transaction data set:		
		Tid 1 2 3 4 5 6		
		Items $\{a,b\}$ $\{b, c, d\}$ $\{a, c, d, e\}$ $\{a, d, e\}$ $\{a, b, c\}$ $\{a, b, c, d\}$		
		Tid 7 8 9 10		
		Items {a} {a, b, c} {a, b, d {b, c, e}		
		Construct the FP tree by showing the trees separately after reading each transaction		
			(08 Marks)	
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6	a.	Explain frequent itemset generation and rule generation with reference to Aprior	(10 Marks)	
	1	Explain the various measures of evaluating association patterns.	(10 Marks)	
	b.	Explain the various measures of evaluating association patterns.	(00 Marks)	
7	a.	Write Hunts algorithm and illustrate its working with an example.	(08 Marks)	
/	b.	Explain rule based classifier and its characteristics.	(08 Marks)	
	U.	Explain fair based classifier and its characteristics.	(00 1141115)	
8	a.	Explain decision tree induction algorithm for classification.	(08 Marks)	
O	b.	What are Bayesian classifiers? Explain Baye's theorem for classification.	(08 Marks)	
	U.	What are Buyesian enastriors. Explain Buye is theorem to constitution	(	
9	a.	What is cluster analysis? Explain different types of clustering's.	(08 Marks)	
	b.	Explain K-means clustering algorithm.	(08 Marks)	
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10	a.	What is cluster? Explain three different types of clusters.	(08 Marks)	
	b.	Explain DBSCAN clustering algorithm.	(08 Marks)	
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2. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8=50, will be treated as malpractice. Important Note: 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.