

**CONTINUOUS INTERNAL EVALUATION- 2**

Dept: CSE	Sem / Div:6A&B	Sub: Data Mining and Data Ware housing	S Code:18CS641
Date:25/06/2021	Time:3.00-4.30 PM	Max Marks: 50	Elective: Yes
Note: Answer any 2 full questions, choosing one full question from each part.			

Q N	Questions	Marks	RBT	COs																				
<b>PART A</b>																								
1 a	Explain various data mining task with examples.	10	L2	CO2																				
b	For the following vectors X, Y, calculate the cosine, Correlation, simple matching coefficient, Hamming distances, Jaccard coefficient. $X=(1,1,0,1,0,1)$ $Y=(1,1,1,0,0,1)$	10	L3	CO2																				
c	What is data mining? With a neat diagram explain KDD process in detail.	5	L2	CO2																				
<b>OR</b>																								
2 a	Describe various types of attributes and data sets.	10	L2	CO2																				
b	Define data preprocessing? Mention the steps involved in it. Explain any two steps in detail.	10	L2	CO2																				
c	Consider the following 2 binary vectors, $X=(1,0,0,0,0,0,0,0,0,0)$ $Y=(0,0,0,0,0,0,1,0,0,1)$ . Find any two similarity and dissimilarity measures.	5	L2	CO2																				
<b>PART B</b>																								
3 a	What is frequent item set generation? Explain frequent item-sets generation using Apriori principle.	10	L2	CO3																				
b	Generate frequent item set and strong association rules for the given data with support-50% and confidence-70% using Apriori algorithm.	15	L3	CO3																				
	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;">TID</td> <td style="width: 15%;">10</td> <td style="width: 15%;">20</td> <td style="width: 15%;">30</td> <td style="width: 15%;">40</td> </tr> <tr> <td>Items</td> <td>{1,3,4}</td> <td>{2,3,5}</td> <td>{1,2,3,5}</td> <td>{2,5}</td> </tr> </table>				TID	10	20	30	40	Items	{1,3,4}	{2,3,5}	{1,2,3,5}	{2,5}										
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Items	{1,3,4}	{2,3,5}	{1,2,3,5}	{2,5}																				
<b>OR</b>																								
4 a	What is association analysis? Explain association rule, confidence and support.	10	L2	CO3																				
b	Generate frequent item set and strong association rules for the given data with support-2 and confidence-80% using Apriori algorithm.	15	L3	CO3																				
	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%;">TID</td> <td style="width: 10%;">100</td> <td style="width: 10%;">200</td> <td style="width: 10%;">300</td> <td style="width: 10%;">400</td> <td style="width: 10%;">500</td> <td style="width: 10%;">600</td> <td style="width: 10%;">700</td> <td style="width: 10%;">800</td> <td style="width: 10%;">900</td> </tr> <tr> <td>Items</td> <td>I1,I2, I5</td> <td>I2,I4</td> <td>I2,I3</td> <td>I1,I2, I4</td> <td>I1,I3</td> <td>I2,I3</td> <td>I1,I3</td> <td>I1,I2, I3,I5</td> <td>I1,I2, I3</td> </tr> </table>				TID	100	200	300	400	500	600	700	800	900	Items	I1,I2, I5	I2,I4	I2,I3	I1,I2, I4	I1,I3	I2,I3	I1,I3	I1,I2, I3,I5	I1,I2, I3
	TID				100	200	300	400	500	600	700	800	900											
Items	I1,I2, I5	I2,I4	I2,I3	I1,I2, I4	I1,I3	I2,I3	I1,I3	I1,I2, I3,I5	I1,I2, I3															