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|  | **UNIT-03**  1.Explain Apriori algorithm for mining association rules |
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|  | 2.Generate frequent itemset in below transactional dataset using apriori algorithm (min-sup=40% min-conf=70%)   |  |  | | --- | --- | | **Tid** | **Items brought** | | T1 | Bread, butter, milk | | T2 | Bread, butter | | T3 | Biscuits, cookies, diapers | | T4 | Bread, butter, milk, diapers | | T5 | Biscuits, diapers | |
|  | 3.Apply apriori algorithm to find frequent itemsets from the following transactional database. Let min\_sup = 30%., minsup:3   |  |  |  | | --- | --- | --- | | TID | Items\_bought |  | | 1 | Pen, notebook, ruler |  | | 2 | Pencil, eraser, sharpener |  | | 3 | Pen, ruler, chart, sharpener |  | | 4 | Pencil, clip, eraser |  | | 5 | Ruler, pin, story book,pen |  | | 6 | Marker, chart, sketchpens |  | |
|  |  |
|  | 4.A database has five transactions. Let min\_sup=80% and min sup 3, min\_confidence=100%TID LIST\_OF\_ITEMS T1 {M,O,N,K,E,Y}  T2 {D,ON,K,E,Y}  T3 {M,A,K,E} T4 {M,U,C,K,Y} T5 {C,O,O,K,I,E} a) Generate frequent itemsets using apriori algorithm. b) List all the strong association rules. |
|  | 5.Explain FP-Growth algorithm with an example. |
|  |  |
|  | 6.Write a short note on decision tree induction? |
|  | 7.[Write a short notes on a) itemset b)frequent item set c) Maximal Frequent item set d) closed frequent item set](http://www.myreadingroom.co.in/notes-and-studymaterial/65-dbms/462-advantages-and-disadvantages-of-dbms.html)  [.](http://www.myreadingroom.co.in/notes-and-studymaterial/65-dbms/462-advantages-and-disadvantages-of-dbms.html) |
|  |  |
|  | 8.Explain partitioning algorithm with an example. |

**UNIT-04**

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| Explain Bayesian Belief Networks with an example? |
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| Explain Naïve-Bayes classifiers and predict instance to the class (weather data set) if outlook=sunny play =? |
| Explain Hierarchical Clustering Agglomerative Method and divisive method |
|  |
| Explain K-Nearest neighbor classification Algorithm and characteristics |
| Illustrate general approaches to solve classification. |
|  |
| Explain the k-nearest neighbor classification and its characteristics. |
| Explain about the different measures used for selecting the splitting attribute. |
|  |
| Explain Decision tree induction algorithm for classification. Discuss the usage of information gain in this   | **Day** | **Outlook** | **Temperature** | **Humidity** | **Wind** | **Play cricket** | | --- | --- | --- | --- | --- | --- | | 1 | Sunny | Hot | High | Weak | No | | 2 | Sunny | Hot | High | Strong | No | | 3 | Overcast | Hot | High | Weak | Yes | | 4 | Rain | Mild | High | Weak | Yes | | 5 | Rain | Cool | Normal | Weak | Yes | | 6 | Rain | Cool | Normal | Strong | No | | 7 | Overcast | Cool | Normal | Strong | Yes | | 8 | Sunny | Mild | High | Weak | No | | 9 | Sunny | Cool | Normal | Weak | Yes | | 10 | Rain | Mild | Normal | Weak | Yes | | 11 | Sunny | Mild | Normal | Strong | Yes | | 12 | Overcast | Mild | High | Strong | Yes | | 13 | Overcast | Hot | Normal | Weak | Yes | | 14 | Rain | Mild | High | Strong | No | |

**UNIT-05**

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| Define clustering? Illustrate the meaning of cluster analysis? |
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| Discuss about PAM Algorithm in detailed. |
| Apply k-means algorithm on following values 12, 24, 20,42,15,14,11,9 where k=2. |
|  |
| Explain PAM algorithm |
| Write short notes on hierarchical clustering |
|  |
| Apply k-means algorithm on following values 12, 24, 20,42,15,14,11,9 where k=2. |
| Illustrate the key issues involved in hierarchical clustering |
|  |
| Explain briefly about outlier detection. |