Data Mining: Assignment Week 2

1. If a store has N items, the number of possible itemsets is:

A. 2N-1

B. 2^N-1

C. N/2

D. N-1

2. An association rule is valid if it satisfies:

A. Support criteria

B. Confidence criteria

C. Both support and confidence criteria

D. None of the above

3. An itemset is frequent if it satisfies the:

A. Support criteria

B. Confidence criteria

C. Both support and confidence criteria

D. None of the above

4. Which of the following property is used by the apriori algorithm:

A. Positive definiteness property of support

B. Positive semidefiniteness property of support

C. Monotone property of support

D. Antimonotone property of support

5. Consider three itemsets I1={bat, ball, wicket}, I2={bat, ball}, I3={bat}. Which of the following statements are correct?

A. support(I1) > support(I2)

B. support(I2) > support(I3)

C. both statements A and B

D. none of the statements A and B

.

For questions 6-10, consider the following small database of four transactions. The minimum support is 60% and the minimum confidence is 80%.

Trans_id	Itemlist
T1	{F, A, D, B}
T2	{D, A, C, E, B}
T3	{C, A, B, E}
T4	{B, A, D}

6. The 1-itemsets that satisfy the support criteria are:

A. {A}, {B}, {C}, {D}

B. {A}. {B}, {C}

C. {A}, {B}

D. None of the above

.

7. The 2-itemsets that satisfy the support criteria are:

A. {BC}, {BE}, {CE}, {AE}

B. {AB}. {BD}, {AD}

C. {AE}, {BC}

D. {BC}

8. The 3-itemsets that satisfy the support criteria are:

A. {ABC}, {ABE}, {BCD}, {ACD}

B. {ABE}. {BCD}, {ACD}

C. {ABE}, {BCD}

D. {ABD}

9. Which of the following is NOT a valid association rule?

A. A -> B

B. B -> A

C. A -> D

D. D -> A

10. Which of the following is NOT a valid association rule?

A. A -> DB

B. D -> AB

C. AD -> B

D. DB -> A