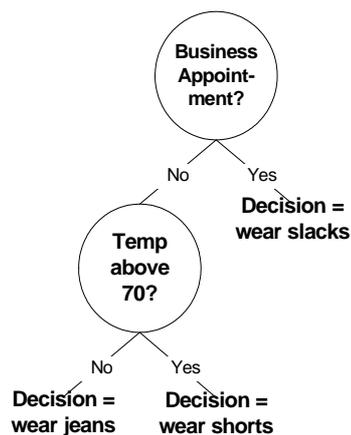


CSE3212 Data Mining
Week 3 Data Mining Approaches
Tutorial Questions

Part A.

1. The process of forming general concept definitions from examples of concepts to be learned.
 - a. Deduction
 - b. Abduction
 - c. Induction
 - d. conjunction
2. Data mining is best described as the process of
 - a. identifying patterns in data.
 - b. deducing relationships in data.
 - c. representing data.
 - d. simulating trends in data.
3. Data used to build a data mining model.
 - a. validation data
 - b. training data
 - c. test data
 - d. hidden data
4. Supervised learning differs from unsupervised clustering in that supervised learning requires
 - a. at least one input attribute.
 - b. input attributes to be categorical.
 - c. at least one output attribute.
 - d. output attributes to be categorical.
5. Which of the following is a valid production rule for the decision tree below?



- a. IF Business Appointment = No & Temp above 70 = No THEN Decision = wear slacks.
- b. IF Business Appointment = Yes & Temp above 70 = Yes THEN Decision = wear shorts.
- c. IF Temp above 70 = No THEN Decision = wear shorts

- d. IF Business Appointment= No & Temp above 70 = No THEN Decision = wear jeans
6. Database query is used to uncover this type of knowledge.
 - a. deep
 - b. hidden
 - c. shallow
 - d. multidimensional
 7. If a customer is spending more than expected, the customer's intrinsic value is _____ their actual value.
 - a. greater than
 - b. less than
 - c. less than or equal to
 - d. equal to

Part B.

1. Given a set of transactions in table 1:
 - a. Build a co-occurrence table for the transaction.
 - b. Calculate the support and confidence for the rule orange -> apple
 - c. Calculate the support and confidence for the rule lettuce -> cucumber
 - d. Which of the above two rules would you consider 'interesting' based on the support and confidence value?
 - e. Calculate the 'improvement' measure of the two rules. Would you change your answer to (d) knowing the 'improvement' values'?

Transaction ID	Transaction description
1	Orange, apple, cucumber
2	Orange, cucumber
3	Orange, Apple, lettuce, cucumber
4	Orange
5	Orange, apple
6	Cucumber, lettuce
7	Apple
8	Lettuce
9	Cucumber, lettuce, apple
10	Orange, apple