## Question 1)

- a) Classification
- b) Discrete Features
  - i) Credit Card Number
  - ii) Date
  - iii) Zip Code
  - iv) Transaction Type
- c) Continuous Features
  - i) Trasaction Price
  - ii) Reciever Old Balance
  - iii) Reciever New Balance
- d) You could stanardize the continuos features or categorize the variables into ranges.
- e) When there's meaningless regularity in data irrelevant to true distinguishing features. When a statistical model describes random error or noise instead of underlying relationship. By pruning lower nodes in a decision tree. If gain of best attribute at a node is below a threshold, stop and make this node a leaf rather than generating children nodes.

f) [B] / \
[0] [1] Class 2 Class 1