

1. Write the key differences among the followings with example:
 - a. Data Mining Vs Data Science (2 Marks)
 - b. Data characterization Vs Data discrimination (2 Marks)
 - c. Data warehouse Vs Database (2 Marks)
2. Suppose that the data for analysis includes the attribute age. The age values for the data tuples are:
25, 25, 30, 33, 33, 35, 13, 15, 16, 45, 46, 52, 70, 21, 22, 22, 25, 25, 35, 35, 35, 36, 40, 16, 19, 20, 20.
 - a. What is the mean of the data? What is the median? (1 Mark)
 - b. What is the mode of the data? Comment on the data's modality (i.e., bimodal, trimodal, etc.). (1 Mark)
 - c. What is the midrange of the data? (1 Mark)
 - d. Can you find (roughly) the first quartile (Q1) and the third quartile (Q3) of the data? (1 Mark)
 - e. Give the five-number summary of the data. (1 Mark)
 - f. Show a boxplot of the data. (2 Marks)
 - g. How is a quantile-quantile plot different from a quantile plot? (2 Marks)