**Question 1**

**The following is a list of 10 students ages:**

**ages = [19, 22, 19, 24, 20, 25, 26, 24, 25, 24]**

Text

Description automatically generated

**Output -**

Graphical user interface, text, application, Word

Description automatically generated with medium confidence

**Question 2:**

Text

Description automatically generated

Graphical user interface, text, application

Description automatically generated

**Output –**

Text

Description automatically generated

**Question 3:**

Text

Description automatically generated

**Question 4:**

**it\_companies = {'Facebook', 'Google', 'Microsoft', 'Apple', 'IBM', 'Oracle', 'Amazon'}**

**A = {19, 22, 24, 20, 25, 26}**

**B = {19, 22, 20, 25, 26, 24, 28, 27}**

**age = [22, 19, 24, 25, 26, 24, 25, 24]**

Text

Description automatically generated

Text

Description automatically generated

Graphical user interface, text, application

Description automatically generated

**Output –**

Graphical user interface, application

Description automatically generated

**Question 5:**

Graphical user interface, text, application

Description automatically generated

**Question 6:**

Graphical user interface, text, application

Description automatically generated

**Question 7:**

Graphical user interface, text

Description automatically generated with medium confidence

**Question 8:**

Text

Description automatically generated with medium confidence

**Question 9:**

**Write a program, which reads weights (lbs.) of N students into a list and convert these weights to**

**kilograms in a separate list using Loop. N: No of students (Read input from user)**

**Ex: L1: [150, 155, 145, 148]**

**Output: [68.03, 70.3, 65.77, 67.13]**

Text

Description automatically generated

**Question 10**

**The diagram below shows a dataset with 2 classes and 8 data points, each with only one feature**

**value, labeled f. Note that there are two data points with the same feature value of 6. These are**

**shown as two x’s one above the other.**

**1. Divide this data equally into two parts. Use first part as training and second part as**

**testing. Using KNN classifier, for K=3, what would be the predicted outputs for the test**

**samples? Show how you arrived at your answer.**

**2. Compute the confusion matrix for this and calculate accuracy, sensitivity and specificity**

**values.**