1. Write Quick Sort algorithm and give one example for showing the working way to sort the numbers.

2. You are making an iPod playlist to hear the songs. Assuming that shuffle functions are not applicable, choose an appropriate data structure that will add and delete songs onto you’re your iPod in such a way that the recently inserted song will always be the first song currently on the iPod.

3. What is brute force mechanism? Try with one brute force code for cracking the password. Give the explanations.

4. Refer any one recent research article related to any field. Summarize the article as follow.

a. objective of the article

b. Algorithms used in the article

c. Experiments done in the article

c. Your observations

**Note**: Need handwritten documents. Single pdf only. Give your register number as file name. Images not allowed. Kindly do not copy others.