Data Structure and Advanced Programming

NOTE: Please upload your answers in either English or Chinese as a PDF to NTU COOL before the due date and time.

1. What is the difference between the process of adding or removing an entry from an array-based list and a link-based list?

2. What is the time complexity for the following operations in an array-based list of n elements?

   a. insert
   b. remove
   c. retrieve
   d. find

3. What is the time complexity for the following operations in a link-based list of n elements?

   a. insert
   b. remove
   c. retrieve
   d. find

4. Write pseudocode that merges two sorted lists into a new third sorted list by using only ADT sorted list operations.