# Data Structure HW#4

**Part I Paper Work**

1    (Exercise 4 of Chapter 4.2) Let  $x = (x_1, x_2, \ldots, x_n)$  and  $y = (y_1, y_2, \ldots, y_n)$  …

2    (Exercise 5 of Chapter 4.2) Let  $x = (x_1, x_2, \ldots, x_n)$  and  $y = (y_1, y_2, \ldots, y_n)$  …

3    (Exercise 1 of Chapter 4.3) Write a C++ template function to output all elements of a chain…

4    (Exercise 4 of Chapter 4.3) Let  $x = (x_1, x_2, \ldots, x_n)$   be the elements of a chain…

5    (Exercise 7 of Chapter 4.4) Do Exercise 1 of Section 4.3 for the case of circularly linked lists.

6    (Exercise 10 of Chapter 4.4) Do Exercise 4 of Section 4.3 for the case of circularly linked lists.

7    (Exercise 4 of Chapter 4.7) Write a C++ Function to evaluate a polynomial at the point  $x$ …

8    (Exercise 3 of Chapter 4.10) Devise a linked representation for a list in which…

**Part II Programming Project**

1.   (Exercise 3 of Chapter 4.10) Implement a C++ template class for doubly linked circular lists with head node. You must include a constructor, copy constructor, and destructor as well as function to insert and delete. A bidirectional iterator must be included as well.

**Note 1**: You can reuse one-side used papers but must in A4 size. Please hand in your assignments to the TAs (R721, Applied Science &Technology Building) by the deadline.

**Note 2:** Please compress your code as well as the snapshot your execution results into a zip file and upload it to **iLearning**.