CNIT-Final

time 1 hour

Student's Name

Problem 1(20 pts)

Write down the result of cout statement in following code.

(1)

```
int a[7] = {1,2,3,4,5,6,7};
int *p = a;
p++;
cout << *p;
```

(2)

```
int b = 10;
int*q = &b;
*q += 5;
cout << b;
```

Problem 2(20 pts)

Implement a function: add, it will use 3 integers a, b, c as its parameters. This function will calculate a+b and use the result to modify the value of c.

for example:

in the main function:

{

int a=2;

int b=3;

int c;

add(a,b,c);

cout<<c;

}

the output will 5, because 2+3=5;

Problem 3(20pts):

(1): Define a structure **node** which has two members: one represent the **data**,

one represent the link between node: **next**

(2) Based on the node you defined in (1), Implement a function insert_start, it'll insert a new node at the beginning of your linked list.

Problem 4(40pts)

PS: In this problem, you should be careful about the **access right**.

(1) Define a class: **price**, it has three float member data: **price**, **weight** and **total**. And these members can only be **accessed by the member function**.

(2) Implement the default constructor which will initialize the member data with zero.

(3) Overload the constructor, it will use 2 float parameters to initialize price and weight, and the total will be equal to price * weight.

(4) Overload the addition operator +. When adding two objects it will return the summation of their total.

For example in following code:

price apple {2,3};

price banana{3,4};

int total=apple+banana;

cout<<total;

The output will be 18, because 2*3=6, 3*4=12 and 12+6=18.