计算机科学系 2009 上学期

《程序设计 I》期末考试试题(A)

1.	Single	Choice	Questions.	20points.

- 1) BBABB
- 6) DBABC
- 11) D D B A B
- 16) CACBA

2. Mistakes identification. 20points.

1)

Line 5): int novowels =0; //int novowels;

Line 6): for(int x =0; x<strlen(text); x++)//for(int x =0; x<=strlen(text); x++)

Line 7): if $(\text{text}[x]=='a' \| \text{text}[x]=='e' \| \text{text}[x]=='i' \| \text{text}[x]=='o' \| \text{text}[x]=='u')$; $//\text{if}(\text{text}[x]=='a' \| 'e' \| 'e' \| 'o' \| 'u')$;

2)

Line 16): //return 0; Line 32): int age; //int age = 0;

3. Program output analysis. 20points.

1)

1 1 1 2 2 3 2)

The result is:

15=3*5

3)

```
Constructing a window.
Constructing a window.
Constructing a window.
Constructing a program.
This is a window, with id: 0, and size :0
This is a window, with id: 1, and size :1
```

4. Fill-in-the-blank questions. 20points.

1)	2)
<u>t/10</u>	<pre>number/max power>=base;</pre>
<u>t/10</u>	<u>left_power>=right_power;</u>
	(number/left_power)%base;

5. Programming design. 20points.

```
#include <iostream>
#include <string>
#include <fstream>
using namespace std;
class Addressbook {
public:
Addressbook(){
for (int i=0; i<3; i++)
     names[i]="";
     phone[i]="";
     address[i]="";
}
      Addressbook(string names[],string phone[],string address[])
      for (int i=0; i<3; i++)
      this->names[i]=names[i];
      this->phone[i]=phone[i];
      this->address[i]=address[i];
      }
void prtToFile(ofstream &output){
          for (int i=0; i<3; i++){
               output <\!\!<\!\!names[i]<\!<" \ "<\!\!<\!\!phone[i]<\!<" \ "<\!\!<\!\!address[i]<\!<" \ "<\!\!<\!\!endl;
          }
}
void prtToScn(){
           for (int i=0; i<3; i++){
               cout < names[i] << " " << phone[i] << " " << address[i] << " " << endl;
// can add accessors and mutators here
 private:
      string names[3];
      string phone[3];
      string address[3];
  };
int main()
  {
       string n[3];
       string p[3];
```

```
string a[3];
  for (int i=0; i<3; i++){
    cout<<"Please input your friend's information: "<<endl;
    cin>>n[i]>>p[i]>>a[i];
}
  Addressbook adb(n,p,a);
  ofstream output;
  output.open("output.txt");
  adb.prtToFile(output);
  output.close();
  adb.prtToScn();
return 0;
}
```