**Lab Exercise 5 Date: 27.7.15-31.7.15**

**5a.**

**Note: All programs should use classes.**

1. Write a program using class to check all the available dupledromes in any given string.

**Sample input: laalmamml**

Sample output: 2 dupledromes ; available ‘a’ once and ‘m’ once

**Sample input 1: laalmammlmm**

Sample output 1: 3 dupledromes; available ‘a’ once and ‘m’ twice

1. Write a program which takes login name and password. But Password should be echoed as \*\*\*\*\*.
2. Get the first name in lower case and 2nd name in UPPER CASE
   1. **Find the length of 1st name and 2nd name**
   2. **Concatenate 1st and 2nd word**
   3. **Convert 1st name to UPPER CASE**
   4. **Convert 2nd name to lower case**
   5. **Compare 1st and 2nd Name**
   6. **Reverse 1st name and Concatenate with 2nd Name**
3. Find the largest and smallest string from a 2D array of 10 strings.
4. Input a word of n characters (mix of both UPPER and lower case)and
   1. **Count the number of unique characters in the word**
   2. **Count the number of UPPER Case letters**
   3. **Count the number of Lower case numbers**

**5b.**

**MCQ/Be the Compiler**

* + 1. **.Write comment at each line and write the output**

*#include <iostream>*

*#include <string>*

*int* main ()

{

std::string str;

std::string str2="Writing ";

std::string str3="print 10 and then 5 more";

*// used in the same order as described above:*

str.append(str2);

str.append(str3,6,3);

str.append("dots are cool",5);

str.append("here: ");

str.append(10u,'.');

str.append(str3.begin()+8,str3.end());

str.append<*int*>(5,0x2E);

std::cout << str << '\n';

*return* 0;

}

**2. Find the Output**

#include <iostream>

#include <string>

using namespace std;

int main ()

{

string str="Steve Jobs founded the apple";

string str2 = str.substr (6, 4);

unsigned pos = str.find("the");

string str3 = str.substr (pos);

cout << str2 << ' ' << str3 << '\n';

return 0;

}

a. Jobs the apple  
b. the apple  
c. Steve  
d. Jobs

**3.** What is the output of this program?

#include <iostream>

#include <string>

using namespace std;

int main ()

{

string str ("I like to code in C");

unsigned sz = str.size();

str.resize (sz + 2, '+');

str.resize (14);

cout << str << '\n';

return 0;

}

a) I like to code in c  
b) I like to code  
c) I like to code in c++  
d) None of the mentioned

**4.** What is the output of this program?

#include <iostream>

using namespace std;

int main()

{

int n = 5;

void \*p = &n;

int \*pi = static\_cast<int\*>(p);

cout << \*pi << endl;

return 0;

}

a) 5  
b) 6  
c) compile time error  
d) runtime error

**5.** What is the output of this program?

#include <iostream>

using namespace std;

int main()

{

int arr[] = {4, 5, 6, 7};

int \*p = (arr + 1);

cout << arr;

return 0;

}

a) 4  
b) 5  
c) address of arr  
d) 7