Week 3 Lab Experiment using C++ (Functions)

1. Write a C++ program to demonstrate the Inline functions

A. CODE:

```
#include<iostream>
using namespace std;
inline int add(int a, int b)
{
return a+b;
}

int main()
{
cout<<"The addition of 289 and 548 is "<<"\n"<<"289 + 548 =
"<<add(289,548)<<endl;
return 0;
}
```

2. Write a program in C++ to demonstrate call by value

A. CODE:

```
#include<iostream>
using namespace std;
void swap(int a, int b)
{
   int temp;
   temp = a;
   a = b;
   b = temp;
   cout<<"Value of a after swapping"<<a<<endl<<"\n";
   cout<<"Value of b after swapping"<<b<<endl;
   return;
}
int main()
{
   int a = 100, b = 200;
   cout<<"Value of a before swapping"<<a<<endl<<"\n";
   cout<<"Value of b before swapping"<<b<<endl<<"\n";
   swap(a, b);
}
```

3. Write a program in C++ to demonstrate call by reference

A. CODE:

```
#include<iostream>
using namespace std;
void swap(int &a, int &b)
{
    int temp;
    temp = a;
    a = b;
    b = temp;
    cout<<"Value of a after swapping"<<a<<endl<<"\n";
    cout<<"Value of b after swapping"<<b<<endl;
    return;
}
int main()
{
    int a = 100, b = 200;
    cout<<"Value of a before swapping"<<a<<endl<<"\n";
    cout<<"Value of b before swapping"<<b<<endl<<"\n";
    swap(a, b);
}
```

4. Write a C++ Program to understand storage specifiers (auto, register, static,extern)

A. CODE:

```
#include <iostream>
using namespace std;
extern int x=0;
int storage_classes()
{
	static int a=10;
	auto b=2;
	register int c=0;
	a++;
	b++;
	c++;
	cout<<"Extern = "<<x<<", Static is = "<<a;
	cout<<", Auto is = "<<b<<", Register is = "<<c<<endl;
	return 0;
}
int main()
{
	while(x<3)
	{
		storage_classes();
		x++;
	}
	return 0;
}
```