



National University of Science and
technology
(NUST)

Lab Manual # 5

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Section (A)

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Course : FOP

Task 1:

```
#include <iostream>

using namespace std;

int main(){
    int x=1;
    do{
        cout<<"enter a number:";
        cin>>x;

    }

    while (x>0);
    return 0;
}
```

Task 2:

```
#include <iostream>
#include <cmath>
using namespace std ;
int main (){
    char operation;
    double num1,num2,stp;
    do{
        cout<<"enter num1 :";
        cin>>num1;
        cout<<"enter num2 :";
        cin>>num2;
        cout<<"enter the required operation +,-,/*" <<endl;
```

```

        cin>>operation;
        switch (operation){
            case '1':
                cout<<"sum of num1 and num2 is "<<num1+num2<<endl;
                break;
            case '2':
                cout<<"difference of num1 and num2 is "<<num1-
num2<<endl;
                break;
            case '3':
                cout<<"division of num1 and num2 is
=<<num1/num2<<endl;
                break;
            case '4':
                cout<<"Multiplication of num1 and num2 is
=<<num1*num2<<endl;
                break;
        }cout<<"press 'r' to stop the calculator:";
        cin>>stp;
    }while (operation == 'o');
    return 0;

}

```

Task 3 (A):

```

#include <iostream>
using namespace std;
int main(){
    int num1=2,num2=0;
    while (num1<101){
        num2+=num1;
    }
}

```

```

        num1=num1+2;

    }

    cout <<"the sum of even numbers from 1 to 100="<<num2<<endl;

    return 0;

}

```

(B):

```

#include<iostream>

using namespace std;

int main(){

    int num1=1,num2=0;

    while(num1<101){

        num1*num2;

        num2+=num1;

        num1++;

    }

    cout<<"sum of square numbers from 1 to 100="<<num2;

    return 0;

}

```

Task 4 (A):

```

#include <iostream>

#include <math.h>

using namespace std;

int main(){

    int i=0,a;

    while(i<21){

        pow(2,i);

    }
}

```

```

        a=pow(2,i);
        cout<<a<<" ";
        i++;
    }
    return 0;
}

```

(B):

```

#include <iostream>
using namespace std;

int main (){
    int a,b,x,sum;
    cout<<"enter first number:";
    cin>>a;
    cout<<"enter sesond number:";
    cin>>b;
    x=a;
    while(x>=a&&x<=b){
        if(x%2!=0){
            sum+=x;
        }

        x++;
    }

    cout<<"sum of odd numbers="<<sum;
    return 0;
}

```