

21115024 Arshita Practical 4

Question 1

```
#include<iostream>
using namespace std;
int prime(int i)
{
    int check=1;

    for (int j = 2;(j*j)<=i; j++)
    {
        if (i % j== 0)
        {
            check=0;
        }
    }
    return check;
}
int main()
{
    cout<<"Enter two numbers";
    int a;
    int b;
    cin>>a;
    cin>>b;
    for(int i=a+1;i<=b;i++)
    {
        int m=prime(i);
        if((m==1)&&(i!=1))
        {
            cout<<i<<" ";
        }
    }
}
```

Output

```
PS C:\Users\HP\OneDrive\Desktop\C++ VSC> cd "c:\Users\HP\OneDrive\Desktop\Assignment 4\" ; if ($?) { g++ q1.cpp -std=c++11 -o q1.exe }
Enter two numbers
0 100
2 3 5 7 11 13 17 19 23 29 31 37 41 43 47 53 59 61 67 71 73 79 83 89 97
PS C:\Users\HP\OneDrive\Desktop\Assignment 4> █
```

Question 2

```
#include<iostream>
using namespace std;
int check(string a)
{
    int m;
```

```

        if(a=="A+")
        {
m=10;
        }
        if(a=="A")
        {
m=9;
        }
        if(a=="B+")
        {
m=8;
        }
        if(a=="B")
        {
m=7;
        }
        if(a=="C+")
        {
m=6;

        }
        if(a=="C")
        {
m=5;
        }
        if(a=="D")
        {
m=4;
        }
        if(a=="F")
        {
m=0;
        }
        return m;
}
double CGPA(string a,string b,string c,string d,string e)
{
    double sum=0;
    int m1=check(a);
    int m2=check(b);
    int m3=check(c);
    int m4=check(d);
    int m5=check(e);
    sum=(m1+m2+m3+m4+m5)/5.0;
return sum;
}
int main()
{

```

```

cout<<"Enter credits of subjects";
string a,b,c,d,e;
cin>>a>>b>>c>>d>>e;
double cgpa=CGPA(a,b,c,d,e);
cout<<cgpa;
}

```

Output

```

Enter credits of subjects
A+
A+
A+
A+
A
9.8
PS C:\Users\HP\OneDrive\Desktop\Assignment 4>

```

Question 3

```

#include<iostream>
using namespace std;
double addition(double a,double b)
{
    double c=(double)(a+b);
    cout<<c;
    return 0;
}
double subtraction(double a,double b)
{
    double c=(double)(a-b);
    cout<<c;
    return 0;
}
double division(double a,double b)
{
    double c=(double)(a/b);
    cout<<c;
    return 0;
}
double multiplication(double a,double b)
{
    double c=(double)(a*b);
    cout<<c;
    return 0;
}
int Functionshowcase(char c)

```

```

{
    switch(c)
    {
        case '+':
            return 1;
            break;
        case '-':
            return 2;
            break;
        case '/':
            return 3;
            break;
        case '*':
            return 4;
            break;
    }
    return 0;
}

int main()
{
    cout<<"what operation?: +,-,/,*";
    char c;
    cin>>c;

    cout<<"enter two numbers";
    double a,b;
    cin>>a>>b;
    int m=Functionshowcase(c);
    switch(m)
    {
        case 1:
            addition(a,b);
            break;
        case 2:
            subtraction(a,b);
            break;
        case 3:
            division(a,b);
            break;
        case 4:
            multiplication(a,b);
            break;
    }
}

```

Output

```
what operation?: +,-,/,*  
+  
enter two numbers  
1.5 1.5  
3  
PS C:\Users\HP\OneDrive\Desktop\Assignment 4>
```

Question 4

```
#include<iostream>  
using namespace std;  
void addition(int a,int b)  
{  
    int c=a+b;  
    cout<<c<<endl;  
}  
void addition(float a,float b)  
{  
    float c=a+b;  
    cout<<c<<endl;  
}  
int main()  
{  
    cout<<"integer or float?: 1 for int and 2 for float";  
    int n;  
    cin>>n;  
    if(n==1)  
    {  
        cout<<"Enter integer input";  
        int a,b;  
        cin>>a>>b;  
        addition(a,b);  
    }  
    if(n==2)  
    {  
        cout<<"Enter floating point numbers";  
        float c,d;  
        cin>>c>>d;  
        addition(c,d);  
    }  
}
```

Output

```

integer or float?: 1 for int and 2 for float
1
Enter integer input
2
4
6
PS C:\Users\HP\OneDrive\Desktop\Assignment 4> cd "c:\Users\
integer or float?: 1 for int and 2 for float
2
Enter floating point numbers 2.5 6.8
9.3
PS C:\Users\HP\OneDrive\Desktop\Assignment 4> 

```

Question 5

```

#include<iostream>
using namespace std;
int func(int n,int m)
{
    if(m<1)
    {
        return 0;
    }
    func(n,m-1);
    cout<<n*m<<'\\n';
}
float func(float n,float m)
{
    if(m<1)
    {
        return 0;
    }
    func(n,m-1);
    cout<<n*m<<'\\n';
}
int main()
{ int a;
  cout<<"For integer:1; For Float:2";
  cin>>a;
  if(a==1)
  {
    int n,m;
    cout<<"Enter number";
    cin>>n;
    cout<<"Enter number of multiples";
    cin>>m;
    func(n,m);
  }
}

```

```

    if(a==2)
    {
float n,m;
cout<<"Enter number";
cin>>n;
cout<<"Enter number of multiples";
cin>>m;
func(n,m);
    }
}

```

Output

```

Enter number
7
Enter number of multiples
6
7
14
21
28
35
42

```

```

For integer:1; For Float:2
2
Enter number 1.5
Enter number of multiples 4
1.5
3
4.5
6
PS C:\Users\HP\OneDrive\Desktop\Assignment 4>

```

Yes, we can overload this program, as on passing integral value and float value it passes value to the respective function.

Question 6

```

#include<iostream>
using namespace std;

int func(char ch)
{
    int m=ch;
    if(m>=90)
    {
        return 0;
    }
}

```

```
    }  
    cout<<ch<<'\t';  
    func(ch+1);  
}  
int main()  
{  
    char ch='A';  
    func(ch);  
}
```

Output



```
PS C:\Users\HP\OneDrive\Desktop\Assignment 4>
```