CP 111 ASSIGNMENT O1.

Question 1.

A code with two integer variables to perform ADDITION.

```
Qn1.cpp ×
1    #include<iostream>
2
3    using namespace std;
4
5  □ int main(){
6        int ushindi;
7        int christina;
8        int jibu;
9        cout<<"ingiza namba ya kwanza: ";
10       cin>>ushindi;
11       cout<<"ingiza namba ya pili: ";
12       cin>>christina;
13       cout<<endl;
14       jibu = ushindi + christina;
15
16       cout<<"jibu ni: "<<jibu<<endl;
17       return 0;
18   }
```

OUTPUT.

```
C:\Dev-Cpp\Qn1.exe
ingiza namba ya kwanza: 7
ingiza namba ya pili: 3

jibu ni: 10

---------------------------------
Process exited after 46.34 seconds with return value 0
Press any key to continue . . .
```

Question 02.

A code with three integer variables to perform ADDITION.

```
[*] Qn2.cpp  ×
1    #include<iostream>
2    using namespace std;
3
4  □ int main(){
5    int ushindi;
6    int hosea;
7    int christina;
8    int answer;
9    cout<< "first number is:";
10   cin>> ushindi;
11   cout<< "second number is:";
12   cin>> hosea;
13   cout<< "third number is:";
14   cin>>christina;
15   answer=ushindi+hosea+christina;
16   cout<<"the   answer is:"<<answer<<endl;
17
18   return 0;
19
20   }
```

OUTPUT.

```
C:\Dev-Cpp\Qn2.exe
first number is:2
second number is:3
third number is:1
the   answer is:6

------------------------------
Process exited after 11.41 seconds with return value 0
Press any key to continue . . .
```

Question 03.

A code to perform MULTPLICATION of three numbers.

```cpp
Qn3.cpp ×
1    #include<iostream>
2    using namespace std;
3
4  ☐ int main(){
5        int victory;
6        int kilasi;
7        int azhik;
8        int answer;
9        cout<< "first number is:";
10       cin>> victory;
11       cout<< "second number is:";
12       cin>> kilasi;
13       cout<< "third number is:";
14       cin>>azhik;
15       answer=victory*kilasi*azhik;
16       cout<<"the   answer is:"<<answer<<endl;
17
18    └ return 0;}
```

OUTPUT.

```
C:\Dev-Cpp\Qn3.exe
first number is:2
second number is:4
third number is:1
the   answer is:8


----------------------------------
Process exited after 38.15 seconds with return value 0
Press any key to continue . . .
```

Question 04.

A code to perform SUBSTRACTION of two numbers.

```cpp
Qn04.cpp ×

1    #include<iostream>
2    using namespace std;
3
4 ⊟ int main(){
5      int u;
6      int v;
7      int w;
8
9      cout<< "first number is:";
10     cin>> u;
11     cout<< "second number is:";
12     cin>> v;
13     w= u-v;
14     cout<<"the  answer is:"<<w<<endl;
15
16   return 0;}
```

OUTPUT.

```
C:\Dev-Cpp\Qn04.exe

first number is:5
second number is:7
the  answer is:-2

------------------------------
Process exited after 71.98 seconds with return value 0
Press any key to continue . . .
```

Question 05.

A code to perform SUBSTRACTION of two numbers that the answer will always be POSITIVE.

Qn5.cpp ✕

```cpp
1    #include<iostream>
2
3    using namespace std;
4    int main(){
5         int a;
6         int b;
7         int c;
8         cout<<"Enter a: "<<endl;
9         cin>>a;
10        cout<<"Enter b: "<<endl;
11        cin>>b;
12
13        if(a>b){
14        c = a - b;
15        }
16
17        else{
18        c = b-a;
19        }
20        cout<<"the value of c is: "<<c<<endl;
21        return 0;
22    }
```
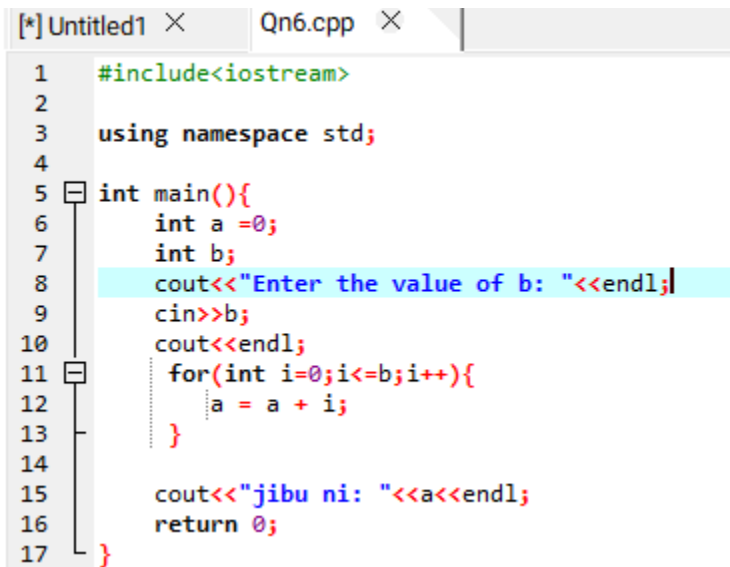
OUTPUT.

C:\Dev-Cpp\Qn5.exe

```
Enter a:
6
Enter b:
7
the value of c is: 1

--------------------------------
Process exited after 26.19 seconds with return value 0
Press any key to continue . . .
```
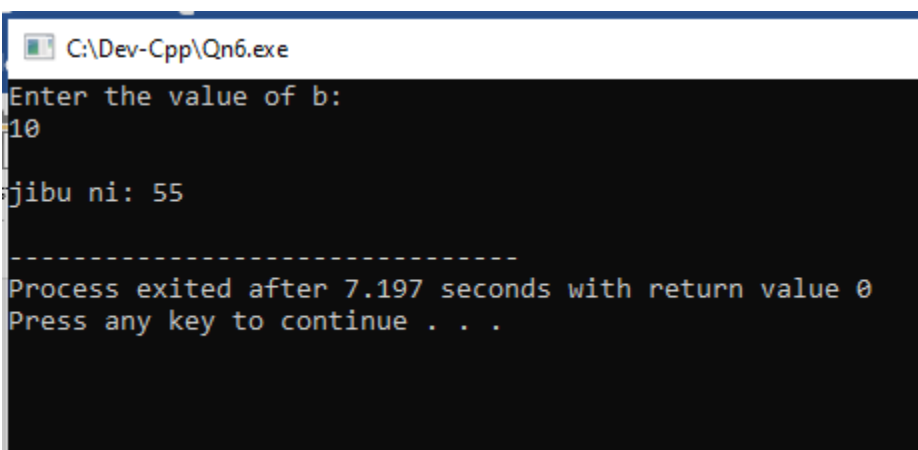
Question06.

A code to perform repeated ADDITION of integers from 1 to 10.

```cpp
#include<iostream>

using namespace std;

int main(){
    int a =0;
    int b;
    cout<<"Enter the value of b: "<<endl;
    cin>>b;
    cout<<endl;
    for(int i=0;i<=b;i++){
        a = a + i;
    }

    cout<<"jibu ni: "<<a<<endl;
    return 0;
}
```

OUTPUT.

```
C:\Dev-Cpp\Qn6.exe

Enter the value of b:
10

jibu ni: 55

-------------------------------------
Process exited after 7.197 seconds with return value 0
Press any key to continue . . .
```

Question 07.

RAM DIAGRAMS.

For question 01.

- RAM status before variable declaration

free
free
free
free
free

- RAM status after variable declaration

reserved	ushindi
reserved	christina
reserved	jibu
free	
free	

- RAM status after data input

7	ushindi
3	christina
reserved	jibu
free	
free	

- RAM status after data proccessing

7	ushindi
3	christina
10	jibu
free	
free	

For question 02.

- RAM status before variable declaration

free
free
free
free
free

- RAM status after variable declaration

reserved	ushindi
reserved	hosea
reserved	christina
reserved	answer
free	

- RAM status after data input

2	ushindi
3	hosea
1	christina
reserved	answer
free	

- RAM status after data proccessing

2	ushindi
3	hosea
1	christina
6	answer
free	

For question 03.

- RAM status before variable declaration

free
free
free
free
free

- RAM status after variable declaration

reserved	victory
reserved	kilasi
reserved	azhik
reserved	answer
free	

- RAM status after data input

2	victory
4	kilasi
1	azhik
reserved	answer
free	

- RAM status after data proccessing

2	victory
4	kilasi
1	azhik
8	answer
free	

For question 04.

- RAM status before variable declaration

free
free
free
free
free

- RAM status after variable declaration

reserved	u
reserved	v
reserved	w
free	
free	

- RAM status after data input

5	u
7	v
reserved	w
free	
free	

- RAM status after data proccessing

5	u
7	v
-2	w
free	
free	

For question 05.

- RAM status before variable declaration

free
free
free
free
free

- RAM status after variable declaration

reserved	a
reserved	b
reserved	c
free	
free	

- RAM status after data input

6	a
7	b
reserved	c
free	
free	

- RAM status after data proccessing

6	a
7	b
1	c
free	
free	

For question 06.

- RAM status before variable declaration

free
free
free
free
free

- RAM status after variable declaration

reserved	a
reserved	b
reserved	
free	
free	

- RAM status after data input

0	a
10	b
reserved	
free	
free	

- RAM status after data proccessing

0	a
10	b
55	
free	
free	