**PROGRAMMING FUNDAMENTAL LAB(5) TASK**

**QUESTION#1**

/\*Task # 1: Generate alphabets from A to Z. (ASCII code for A=65 and Z=90).\*/

#include<iostream>

using namespace std;

int main()

{

int x=65;

int y=90;

char w=y;

for(char ch=x;ch<=w;ch++){

cout<<ch<<' ';

}

return 0;

}

**QUESTION#2**

/\*Task # 2: Generate a series of Odd numbers and even numbers (up to 20) using for

loop\*/

#include<iostream>

using namespace std;

int main()

{

cout<<"odd"<<'\t'<<"even"<<endl;

for(int x=1, y=2;x<=10,y<=10;x+=2,y+=2)

cout<<x<<'\t'<<y<<endl;

return 0;

}

**QUESTION#3**

/\*Task # 3: Write a program that prints all Roll numbers of your class using

for loop\*/

#include<iostream>

using namespace std;

int main()

{

cout<<"\*\*\*\*\*\*Roll numbers of section 3:\*\*\*\*\*\*\n";

for(int x=3;x<=150;x+=3){

if(x<=9)

cout<<"22SW00"<<x<<endl;

if(x>9&&x<=99)

cout<<"22SW0"<<x<<endl;

if(x>99&&x<=150)

cout<<"22SW"<<x<<endl;

}

return 0;

}

**QUESTION#4**

/\*Task # 4: Consider Task=#1 and separate vowels and consonants.\*/

#include<iostream>

using namespace std;

int main()

{

cout<<"Vowel\tConsonant\n";

for(char ch='A';ch<='Z';ch++){

switch(ch){

case 'A':cout<<ch;break;

case 'E':cout<<ch;break;

case 'I':cout<<ch;break;

case 'O':cout<<ch;break;

case 'U':cout<<ch;break;

default:cout<<'\t'<<ch<<endl;

}

}

return 0;

}

**QUESTION#5**

/\*Task # 5 Write a program to print the table of characters that are equivalent

to the Ascii codes from 97 to 122.

The program will print 10 characters per line\*/

#include<iostream>

#include<iomanip>

using namespace std;

int main()

{

for(char ch='a';ch<='z';ch++){

int x=ch;

if(ch=='j' || ch=='t')

cout<<ch<<"="<<x<<endl;

else

cout<<ch<<"="<<x<<'\t';

return 0;

}

**QUESTION#6**

/\*Task # 6: Write a C++ program that takes two characters as input and display all the characters between these two characters. And also count the number of characters

Test data

Enter first character: d

Enter second character: p

Expected output

Characters between 'd' and 'p' are: e f g h i j k l m n o

and Characters count : 11

\*/

#include<iostream>

using namespace std;

int main()

{

char x,y;

int count;

cout<<"Enter first character:";

cin>>x;

cout<<"Enter second character:";

cin>>y;

char i;

cout<<"Character b/w "<<x<<" and "<<y<<":";

for( i=x;i<y;i++){

if(i>x)

{

cout<<i<<' ';

count +=1;

}

}

cout<<"\nsum:"<<count;

return 0;

}

**QUESTION#7**

/\*Task # 7: Write a program called SumAndAverage to produce the sum of 1, 2, 3, ..., to

100. Also compute and display the average. The output shall look like:

The sum is 5050

The average is 50.0\*/

#include<iostream>

using namespace std;

int main()

{

int sum=0;

for(int x=1;x<=100;x++){

sum+=x;}

cout<<"The sum is :"<<sum<<endl;

cout<<"The average is:"<<(float)sum/100;

return 0;

}

**QUESTION#8**

/\*Task # 8 Write a program that prints the table of number 5 up to 15

(i.e 1\*5=5 ……… 15\*5=75)\*/

#include<iostream>

#include<iomanip>

using namespace std;

int main()

{

int x=5;

int n=1;

while(n<=15){

cout<<setw(2)<<n<<"\*"<<x<<"="<<n\*x<<endl;

n++;

}

return 0;

}

**QUESTION#9**

/\*Task# 9 write a program that takes an inter as an input and prints its factorial

Output

Number : 5

Factorial : 120 \*/

#include<iostream>

using namespace std;

int main()

{

int x;

int fact=1;

cout<<"Enter any number:";

cin>>x;

for(int i=x;i>1;i--){

fact\*=i; }

cout<<"Factorial :"<<fact;

return 0;

}

**QUESTION#10**

**LOOP#1**

/\*Task # 10: What do the loops below do?

Loop 1\*/

#include<iostream>

using namespace std;

int main()

{

for(int i = 0; i < 20; i++){

if(i % 2 == 0){ // print 4 table

cout<<(i\*2);

}

}

return 0;

}

**LOOP#2**

//Loop 2

#include<iostream>

using namespace std;

int main()

{

for(int i = 20; i > 0 ; i-- ){

if(i % 2 == 0){

cout<<i;}

} // reverse table of 2

return 0;

}

**LOOP#3**

//Loop 3

#include<iostream>

using namespace std;

int main()

{

int mysteryInt = 100;

for(int i = 5; i > 0;i-- ){

mysteryInt -= i; //100-5=95

//95-4=91

cout<<(mysteryInt); //91-3=88

} //88-2=86

//86-1=85

return 0;

}

**LOOP#4**

//Loop 4

#include<iostream>

using namespace std;

int main()

{

for(int i = 5; i > 0;i-- ){

int mysteryInt = 100;

mysteryInt -= i;

cout<<(mysteryInt);

}

return 0;

}

**LOOP#5**

//Loop 5:

#include<iostream>

using namespace std;

int main()

{

int mysteryInt = 1;

int counter=1;

while(mysteryInt <3 ) { //until the value of mysteryint is less than 3

//loop continue

mysteryInt = mysteryInt\* counter; //mysteryint store the value

counter++;}

cout<<(mysteryInt); //after while condition becomes false cursor

//move from loop to following statement

return 0;

}