**Output Prediction Questions in LOOPS**

**Type, compile and execute the following programs and record the results and justify the output. Predict the output of the following:-**

1. int main()

{

char cnt=0;

for(;cnt++;printf("%d",cnt)) ;

printf("%d",cnt);

return 0;

}

Output: 1

The for checks for condition itself and gets terminated after the semicolon. Cnt++ increases the value of cnt to 1.

1. int main()

{

int tally=0;

for(;;)

{

if(tally==10)

break;

printf("%d ",++tally);

}

return 0;

}

Output: 1 2 3 4 5 6 7 8 9 10

Infinite For loop condition breaks out because of if and break statements.

1. int main()

{

int i,j,charVal='A';

for(i=5;i>=1;i--)

{

for(j=0;j< i;j++)

printf("%c ",(charVal+j));

printf("\n");

}

return 0;

}

Output: A B C D E

A B C D

A B C

A B

A

Adding value in ascii code

1. int main()

{

int cnt=1;

do

{

printf("%d,",cnt);

cnt+=1;

} while(cnt>=10);

printf("\nAfter loop cnt=%d",cnt);

printf("\n");

return 0;

}

Output:1,

After loop cnt=2

Post condition check and Condition is false

1. int main ()

{

int loop=10;

while(printf("Hello ") && loop--);

return 0;

}

Output: Hello Hello Hello Hello Hello Hello Hello Hello Hello Hello Hello

Post increment

1. int main ()

{

int i=2,j=2;

while(i+1?--i:j++)

printf("%d",i);

return 0;

}

Output:1

Ternary operator

1. int main()

{

int i,j;

i=j=2,3; while(--i&&j++)

printf("%d %d",i,j);

return 0;

}

Output: 1 3

The pre increment and post increment

1. int main()

{

int i;

for(i=0;i<=5;i++);

printf("%d",i);

return 0;

}

Output: 6

Simply for loop is ended by semicolon

{

int i;

for(i=10;i<=15;i++){

while(i){

do{ printf("%d ",1);

if(i>>1)

continue; }while(0);

break;

} }

return 0;

}

Output: 1 1 1 1 1 1

Simply confusing loops

1. int main()

{

int i,j,k;

for(i=0,j=2,k=1;i<=4;i++){

printf("%d ",i+j+k);

}

return 0;

}

Output: 3 4 5 6 7

Simply loop

1. int main()

{

double k = 0;

for (k = 0.0; k < 3.0; k++)

printf("Hello");

return 0;

}

Output: HelloHelloHello

Just loops

1. int main()

{

int i=5;

do{

printf("%d",i);

continue;

i++; } while(i<=10);

return 0;

}

Output:5555555555555555555555555555555555555555555555555555555555555555555555555555555555555555555…………………………

Infinite loop due to continue statement.

1. int main()

{

int i,j,k;

for(i=0;i<3;i++)

{

for(j=0;j<3;j++)

Printf(“%d”,i+j);

}

}

return 0;

}

Output:012123234

Nested loops

1. #include <stdio.h>

int main()

{ int n;

for (n = 9; n!=0; n--)

printf( "n = %d", n--);

return 0;

}

Output: n = 9n = 7n = 5n = 3n = 1n = -1n = -3n = -5n = -7n = -9n

N=0 skips as n is directly reducing by 2.

1. #include<stdio.h>

int main()

{ int c = 5, no = 10;

do { no /= c; }

while(c-- );

printf ("%d\n", no);

return 0;

}

Output: No output

That’s a error type floating point interception.

1. #include<stdio.h>

int main()

{

char check = 'a';

switch (check)

{

case 'a' || 1: printf("Geeks ");

case 'b' || 2: printf("Quiz ");

break;

default: printf("GeeksQuiz");

}

return 0;

}

Output: Compilation failed.

We cant use conditions in switch case(Duplicate case values)

1. #include<stdio.h>

int main()

{

int i = -5;

while (i <= 5)

{

if (i >= 0)

break;

else

{

i++;

continue;

}

printf("C Prog");

}

return 0;

}

Output: (No output)

Print Condition skips to execute

1. #include <stdio.h>

void main() {

char cnt=0;

for(;cnt++;printf("%d",cnt)) ;

printf("%d",cnt);

}

Output: 1

Simply as 1 number question

1. #include <stdio.h>

void main() {

int i,j,charVal='A';

for(i=5;i>=1;i--) {

for(j=0;j< i;j++)

printf("%c ",(charVal+j)); printf("\n");

}

}

Output: A B C D E

A B C D

A B C

A B

A

1. #include<stdio.h>

void main()

{

int cnt=1;

while(cnt>=10)

{

printf("%d,",cnt);

cnt+=1;

}

printf("\nAfter loop cnt=%d",cnt);

printf("\n");

}

Output: After loop cnt=1

The while condition is false.

1. #include<stdio.h>

int main()

{

int i=1;

while(i<=10 && 1++)

printf("Hello");

}

Output: Error

Value required as increment operand. (not 1++ we need i++)

1. #include<stdio.h>

int main()

{

int i=2,j=2;

while(i+1?--i:j++)

printf("%d",i);

return 0;

}

Output:1

Ternary operation

1. #include<stdio.h>

int main()

{

int i=1;

for(i=0;i=-1;i=1)

{

printf("%d ",i);

if(i!=1)

break;

}

return 0;

}

Output: -1

The value of I is re assigned to -1.

1. #include<stdio.h>

Int main()

{

Int I;

for(i=10;i<=15;i++){

while(i){

do{

printf(“%d”,1);

if(i>>1)

continue;

}while(0);

break;

}

}

return 0;

}

Output: 111111

Simple loops

1. #include<stdio.h>

int main(){

char c=125;

do

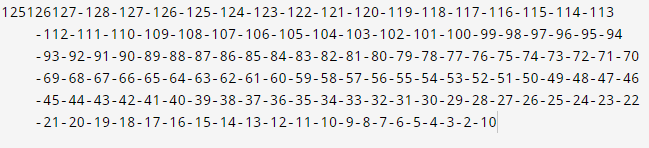
printf(“%d”,c);

while(c++);

return 0;

}

Output:



Working with ascii codes Ascii maximum limit 127

1. #include<stdio.h>

int main(){

int x=123;

int i={

printf(“c”“++”)

};

for(x=0;x<=i;x++){

printf(“%x”,x);

}

return 0;

}

Output: c++0123

int i counts the number of bytes of data