1. Differentiate between entry controlled loop and exit controlled loop. Give examples.

The loop in which test condition is checked in the beginning of the loop are known as entry controlled loop. For Example: while loop. Whereas when statements inside the loop body is executed and then the condition is checked that loop is known to be as exit controlled loop. For Example: do-while loop.

1. Each pass through a loop is called a/an
2. Enumeration
3. Iteration
4. Culmination
5. Pass through

Ans. Iteration.

1. In a group of nested loops, which loop is executed the most number of times?
2. Outermost loop
3. Innermost loop
4. All loops are executed the same number of times
5. Cannot be determined without knowing the size of the loops.

Ans. Innermost loop

1. What's wrong?

while( (i < 10) && (i > 24))

{

// some statements

}

1. the logical operator && cannot be used in a test condition
2. the while loop is an exit condition loop
3. the test condition is always false
4. the test condition is always true

Ans. the test condition is always false.

1. How many times 'its a while loop' should be printed?

int main()

{

int i = 1 ;

i = i - 1 ;

while(i)

{

cout<<"its a while loop";

i++ ;

}

return 0;

}

1. 1
2. 2
3. 0
4. Infinite times

Ans. 0

1. Is there any problem with the following code

#include <iostream>

int main()

{

int i = 0;

while (++i)

{

printf("H");

}

return 0;

}

Ans. The code is correct in syntax, but because the while loop's condition is always true (++i increases the value of i by 1 and then returns the new value, which is always non-zero), the code will continue forever and create an infinite loop. As a result, until it is stopped manually or by the operating system, the programme will continue printing "H" indefinitely.

1. Write a program to print the sum and average of first ‘n’ natural numbers. Accept the limit ‘n’ from the user.

#include <iostream>

using namespace std;

int main() {

int n, sum = 0;

float avg;

cout << "Enter the limit n: ";

cin >> n;

for (int i = 1; i <= n; i++) {

sum += i;

}

avg = (float) sum / n;

cout << "Sum of first " << n << " natural numbers is: " << sum << endl;

cout << "Average of first " << n << " natural numbers is: " << avg << endl;

return 0;

}

1. How many times the value of ‘i ‘ is checked in the following code?

#include <iostream>

int main()

{

int i = 0;

do {

i++;

cout<< "In while loop\n";

} while (i < 3);

return 0;

}

Ans. The value of ‘i’ is checked three times in the following code.

1. **Df**
2. **Df**
3. **df**