

## Q) MCQ's on loops concept

- 1) Which of the following loops guarantees to execute its body at least once?
- for loop.
  - while loop.
  - do-while loop.
  - None of the above.

Answer: do-while loop (c).

2) While or the following is an entry controlled loop?

- do-while loop.
- for loop.
- switch statement.
- break statement.

Answer: for loop (b), because break is used to terminate the loop and exit to the statement immediately following the loop.

- 3) What is the purpose of the break statement in a loop?
- To skip the current iteration and proceed to terminate the loop and exit to the statement immediately following the loop.
  - To restart the loop from the beginning.
  - To cause a compile time error.

Answer: (b)

- 4) What is the purpose of the continue statement in a loop?
- To terminate the loop and exit to the statement immediately following the loop.

Answer: (b)

- b) to skip the current iteration, and proceed to the next iteration of the loop.
- c) to restart the loop from the beginning.
- d) to cause a runtime error.
- Answer: (b)

5] Which part of the for loop is optional?

- a) Initialization. (b) (Ans)
- b) Condition. (Ans) (c) (b)
- c) Increment/Decrement. (Ans) (d) (b)
- d) All of the above. (Ans) (a) (b) (c) (d)

Answer: (d) All of the above.

6) Consider the following code snippet.

C int q=0; (d) (Ans)

while (q<5){ (Ans) (b)

    print f("q,%d",q); (Ans) (b)

    q++; (Ans) (b)

• What will be the output? (Ans) (d)

a) 01234, and each digit is ignored. (Ans) (b)

b) 12345, with each character one. (Ans) (b)

c) 012345. (Ans) (d) (Ans)

d) Infinite loop. (Ans) (d) (Ans)

Ans: (a) 01234. (Ans) (d) (Ans)

7) How many times will the following loop execute? C. (Ans) (b) (Ans)

int q=0;

do {

    print f("Hello\n");

    q++;

    while(q<0);

a) 0 times (Ans) (b) (Ans) (d)

b) 1 time. (Ans) (b) (Ans) (d)

8) Write one of the following  $\rightarrow$  the correct syntax for an infinite loop?

a) for (1)

b) for (int i=0; i, i++)

c) for (1)

d) while (1)  $\rightarrow$  the above . It is to be noted that

Ans - (d).

9) What is an infinite loop?

a) A loop that executes a fixed number of times

b) A loop that never terminates

c) A loop that executes only once

d) A loop with no condition

Ans - (b)

10) What happens if the condition in a while loop is initially false?

a) the loop body executes once

b) the loop body never executes

c) a complete-time error occurs

d) an infinite loop occurs

Ans (b)

11) what will be the output of the following code?

C int i=0;

for ( ; ; ) {  
    printf("%d", i);  
    i++;

    } while (i<0);

a) 0.

b) no output

c) Infinite loop

- 12) While loop is most suitable when the number of iterations is known before hand?
- while loop
  - do-while loop
  - for loop
  - go to loop
- Ans: (c)
- 13) what is nested looping?
- A loop within a function.
  - A loop that calls itself recursively
  - A loop inside another loop
  - A loop with multiple condition
- Ans: (c)
- 14) what is the effect of omitting the initialization part in a for loop?
- compile-time error
  - Run-time error
  - the loop will still execute if the condition and increment part are present.
  - an infinite loop
- Ans: (c)
- 15) which of the following is true is about the do - while loop?
- it tests the condition at the beginning or the loop
  - it tests the condition at the end or the loop
  - it does not have a condition
  - it always executes only once

16) What will be the output of the following code for (int  $i=0$ ;  $i < 3$ ;  $i++$ ) {  
    *i* = (*i* == 1) ?  $i + i$  :  $i - i$ ;  
    Content;  
    *i* =  $i + i$ ;  
    print f("%d", *i*);  
}

a) 012. good answer is taken (b)

b) 02. correct answer is good (b)

c) 12. correct answer is good (b)

d) 0.

ans b (b). correct answer is good (b)

17) Which of the following statement is nota control flow statement? (b)

a) if-else

b) switch.

c) print.

d) for

ans c (c)

18) What will be the output of the following code?

for (int  $i=0$ ;  $i < 3$ ;  $i++$ ) {

    if ( $i == 1$ ) {

        break;

    print f("%d", *i*);

}

ans b. a) 012. no mistakes made (b)

b) 02. correct answer is good (b)

c) 0. correct answer is good (b)

d) 1.

ans 1 (c).

- 19) What is a while loop preferred over a for loop?
- a) when the number of iterations is known.
  - b) when the loop needs to execute at least once.
  - c) when the termination condition is more complex and not directly tied to a counter.
  - d) Never.

Ans: (c).

- 20) What is the correct syntax for a loop?
- a) for (initialization, increment/decrement; condition)
  - b) for (condition; initialization; increment/decrement)
  - c) for (initialization, condition; increment/decrement)
  - d) for (loop - body; condition; initialization,

Ans: (c).