

Multiple Choice Questions

Q 1: A loop that never ends is called:

- (A) Infinite loop (B) Running loop (C) Nested loop (D) Continuous loop

Q 2: One execution of a loop is known as a (n):

- (A) Test (B) Iteration (C) Duration (D) Integer

Q 3: A special value that terminates the loop is called:

- (A) Terminate value (B) Sentinel value (C) Control value (D) End value

Q 4: Which one is not a loop structure?

- (A) Switch (B) For (C) While (D) Do-while

Q 5: Following is a control structure that causes a statement or group of statements to repeat:

- (A) Decision statement (B) Loop (C) Sequential (D) Logical

Q 6: A loop counter can be defines as:

- (A) The final value of a loop (B) The initial value of a loop
 (C) A variable that counts loop iterations (D) The step value of a loop

Q 7: ___ is a loop statement:

- (A) If (B) While (C) If-else (D) Switch

Q 8: While loop is also called:

- (A) Conditional loop (B) Do-while loop (C) For loop (D) All of these

Q 9: Following in the while loop statement controls the loop iteration:

- (A) Colon (B) Semicolon (C) Condition (D) { }

Q10: The while loop body with multiple statements ends with:

- (A) Right brace } (B) Right bracket] (C) Comma (D) Semicolon

Q11: In while loop , the loop control variable is always initialized?

- (A) Outside the program (B) After loop ends
 (C) Inside the loop body (D) Outside the body of loop

Q12: A variable whose value controls the number of iterations is known as ____

- (A) Variable (B) Loop Variable (C) Control Variable (D) Loop Control Variable

Q13: Examine the following code and tell output:

```
int count = -2; while ( count <3 ) { printf ("%d", count); count + = 1 ; }
```

- (A) -2-11234 (B) -2-1123 (C) -3-4-5-6-7 (D) -2-1012

Q14: Semicolon is placed at the end of condition in:

- (A) Switch (B) For loop (C) While loop (D) Do-while loop

Q15: The ___ loop will execute at least once even the condition is false:

- (A) While (B) Do-while (C) For (D) All of these

Q16: A counter can be defines as:

- (A) The final value of a loop (B) The starting value of a loop
 (C) A variable that counts loop iteration (D) The step value of a loop

Q17: In for loop , which expression is executed at least once:

- (A) Test condition (B) Increment (C) Initialization (D) Decrement

Q18: What is the final value of I after executing the code : for (inti = 1 : i < 5 ; i + = 2):

- (A) 7 (B) 5 (C) 6 (D) 9

Q19: ___ structure is used when programmer does not know in advance the number of repetition of loop?

- (A) do-while (B) for (C) while (D) Both A & C

Q20: Which for loop will counts from 0 to 5?

- (A) For int c = 0 ' < = 6 ; c++) (B) For int c = 0 ' < = 5 ; c++)
 (C) For int c = 0 ' < 5 ; c++) (D) For int c = 0 ' < = 7 ; c++)

Q21: The for loop contains three expressions , initialization , condition and:

- (A) Character (B) Float (C) Increment/decrement (D) All of these

Q22: Which of the following is called counter controlled loop?

- (A) do-while (B) while (C) for (D) All loops

Q23: Which of the following is called counter loop?

- (A) nested if-else (B) if-else (C) for loop (D) while loop

Q24: A loop within a loop is called:

- (A) Complex (B) Nested (C) Infinite (D) For

Q25: The keyword ' break ' cannot be used within:

- (A) For loop (B) While loop (C) If-else statement (D) Do-while loop

Q26: ____ can be used to terminate the loop:

- (A) Terminate (B) Break (C) Stop (D) exit

Q27: In a group of nested loops, which loop is executed the most number of times?

- (A) The outermost loop (B) All loops at the same number of times
 (C) The innermost loop (D) Cannot be determined

Q28: ____ loop structure always executes at least once:

- (A) Nested (B) FOR (C) While (D) Do while

Q29: In which loop the condition come after the body of the loop?

- Ⓐ For () Ⓑ Do - while () Ⓒ While () Ⓓ Nested for ()

Q30: Which of the following loop is available in C?

- Ⓐ While-wend Ⓑ Sequence Ⓒ For-next Ⓓ Do-while

Q31: Semicolon is placed at the end of condition in:

- Ⓐ Switch Ⓑ While loop Ⓒ For loop Ⓓ Do-while loop

Q32: The Do - while loop structure always ends with:

- Ⓐ Comma Ⓑ Colon Ⓒ Semi colon Ⓓ Brace

Q33: _____ iterates at least once if condition is false:

- Ⓐ While loop Ⓑ For loop Ⓒ Do - while loop Ⓓ All of these

Short Questions

Q1: What is a Control structure?

Ans: A control structure is a statement used to control flow of execution in a program or function. Control structure is used to combine individual instructions into a single logical unit. This unit has one entry point and one exit point. Program logic is implemented with the help of control structures. Three kinds of control structures are used to control flow of execution of instructions. These are as follows:

- Sequence structure
- Selection structure
- Repetition structure

Q2: What is meant by sequence structure?

Ans: In sequence structure the instructions of a program execute one after the other in the order in which they are written. It is also called the default flow of a program. The program starts execution from the first instruction and all instructions are executed one by one in a sequence.

Q3: What is meant by selection structure?

Ans: In the selection structure, the instructions of the program are divided into two or more groups. Selected group of instructions are executed. This selection is done after evaluation of a certain condition.

Q4: What is meant by repetition structure?

Ans: Repetition structure is also called iteration structure or loop structure. It is used to execute a statement or set of statements repeatedly as long as the given condition remains true. This control structure is used to repeat same or similar work. There are three basic loop structures in C language. These are as follows:

- While loop
- Do-while loop
- For loop

Q5: What is IF statement?

Ans: "if" is a keyword in C language. "if" statement is the simplest form of selection structure. It is used to execute or skip a statement or a set of statements after testing a condition. The condition should be a logical or relational expression.

After evaluation if the result of condition is true the statement or set of statements after "if" statement executes. If the result of the condition is false the statement or the set of statements after "if" statement are skipped.

The general syntax of if statement is

```
if(condition)
Statement;
```

Q6: What is compound statement?

Ans: A set of statements enclosed in curly brackets is called compound statement. It is also called block of code.

Q7: What is if-else statement?

Ans: "if" statement is used to make a decision whether a particular task will be performed or not. If we want to make a two way decision if-else statement is used. After evaluation of condition one from two code blocks will be executed and the other will be skipped. We cannot execute or skip both code blocks.

The general syntax of if-else

statement is **if(condition)**

```
Statement;
else
Statement;
```

Q8: What is if-else-if statement?

Ans: if-else-if statement is used to execute one compound statement from two or more statements. If there are more than two compound statement and we want to choose one from them if-else-if statement is used.

The general syntax of if-else-if statement is

```
if(condition 1)
```

```
Statement 1;
```

```
else if(condition 2)
```

```
Statement 2;
```

```
else if(condition n)
```

```
Statement n;
```

```
else Default
```

```
statement;
```

Q9: What is conditional operator?

Ans: The conditional operator is used as an attribute of simple if-else statement. It is used to make two way decision.

The general syntax of conditional operator is

```
(Condition)? Statement 1: Statement 2;
```

Condition should be a logical or relation expression. After evaluation if the result of condition is true then statement 1 is executed. If result of condition is false then statement 2 is executed.

Q10: What is switch statement?

Ans: Switch statement is an alternative of if-else-if statement. It is also a conditional statement. It is used when we want to execute a block on statements from multiple blocks.

The general syntax of switch statement is

```
Switch (expression) {  
break;  
} case constant-expression: statement (s);  
case constant-expression: statement (s);  
break; default: statement(s);
```

Q11: What is a nested if statement?

Ans: The use of an "if" statement is used with in another "if" statement is called nested if statement.

The general syntax of nested if statement is

```
If (Condition 1)  
{  
  If (Condition 2)  
  {  
    Statement;  
  }  
}
```

Q12: What is break statement?

Ans: Break is a keyword. It is the last statement in each case. It is used to transfer flow of control outside a code block. When break statement executes in switch statement the flow of control is transferred to the first instruction after switch block.

