

1. which loop is guaranteed to execute at least once?

- a) for loop
- b) while loop
- c) do-while loop
- d) None

2. what is the output of:

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

- a) 0 1 2
- b) 1 2 3
- c) 0 1 2 3
- d) Infinite loop

3. which keyword is used to exit loop immediately?

- a) exit
- b) break
- c) continue
- d) stop

4. what does the continue statement do?

- a) ends the loop
- b) skips rest of the loop body and starts next iteration
- c) Repeats the loop
- d) skips the entire loop

5. A loop that never ends is called:

- a) Tight loop
- b) endless loop
- c) Infinite loop
- d) Dead loop

6. In a for loop, which part is optional?

- a) Initialization
- b) condition
- c) Increment
- d) All of the above

7) what is the output?

```
i=5  
while(i>0):  
    print(i)  
    i-=1**
```

- a) 5 4 3 2 1
- b) 6 2 3 4 5
- c) 4 3 2 1 0
- d) Infinite loop

8) which loop is best better when number of iterations is known?

- a) while
- b) for
- c) do-while
- d) if

9) what is the time complexity of :

```
for(i=0;i<n;i++) {}**
```

- a) O(1)
- b) O(n)
- c) O(n^2)
- d) O(log n)

10) which loop will run minimum number of ~~times~~ times

- a) for
- b) while
- c) do-while
- d) all run equally

11) what will the following print?

```
for (i=0;i<10;i+=2) print(i)**
```

- a) 0 2 4 6 8
- b) 1 3 5 7 9
- c) 0 1 2 3 4
- d) 2 4 6 8 10

12. Which is an entry-controlled loop?

a) while

b) for

c) do-while

~~d~~ Both A and B

13. What happens if loop condition is always true?

a) compilation error

b) Executes once

~~c~~ Infinite loop

d) Skips loop

14) What does this code do?

Sum = 0

for (i=1; i<=5; i++): sum += i**

a) Finds product

~~b~~ Finds sum of 1 to 5

c) Prints numbers

d) Infinite loop

15) Which loop is better for menu-driven programs?

a) for

b) while

~~c~~ do-while

d) switch

16) What is the output?

for (i=3; i>0; i--) print(i*i)**

~~a~~ 941

b) 149

c) 321

d) 123

17) which operator is commonly used for loop increments?

- a) ++
- b) --
- c) +=

~~d)~~ All of the above

18) what type of loop is this?

while(true):**

- a) Finite loop
- ~~b)~~ Infinite loop
- c) No loop
- d) compiler error

19) which statement is used to skip current iteration?

- a) next
- ~~b)~~ continue
- c) skip
- d) break

20) what is the loop control

- a) A variable that increases only
- ~~b)~~ Variable used in decision-making of loop
- c) Variable used outside loop
- d) None