

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++) printf("%d", 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) 1 2 3 4 5

c) 4 3 2 1 0

d) Infinite loop

8) which loop is best ~~between~~ 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) 9 4 1
- b) 1 4 9
- c) 3 2 1
- d) 1 2 3

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