

1. What will be the output of this for loop?

```
for (int x=5; x>0; x-=1) {  
    printf("%d", x);  
}
```

- a) 54321 b) 42 c) 531 d) 5432

2. Which of the following is true about a while loop?

- a) It executes the loop body at least once
- b) The condition is checked at the end of each iteration.
- c) The loop body will not execute if the condition is initially false
- d) It is an exit-controlled loop

3. What happens in a while loop if the condition is always true?

- a) The loop will run indefinitely
- b) The loop will run only once
- c) The loop will never execute
- d) The loop will exit after a fixed number of iterations.

4. What is the output of this while loop?

```
int i=0;  
while (i<5) {  
    printf("%d", i*2);  
    i+=1;  
}
```

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

5. What will be the output of the following while loop?

```
int x=5;  
while (x>0) {  
    x-=5;  
}
```

- a) 5 b) 0 c) The loop will not execute d) An error will occur

6. What is an example of iteration in programming?

- a) if-else b) switch c) for loop d) return statements

7) Which type of loop is guaranteed to execute the body of the loop at least once?

- a) for loop b) while loop c) do-while loop d) nested loop

8) What will be the value of `i` after the following (C/Java) code snippet executes?

```
int i = 0;
while (i < 5) {
    i++;
}
```

- a) 4 b) 5 c) 6 d) 0

9) While loop is best to use when the number of iteration is known in advance?

- a) while loop b) do-while loop c) for loop d) infinite loop

10) What is the result of a `for(;;)` loop in C?

- a) A syntax error b) No output c) An infinite loop
d) A loop that runs only once

11) What is the output of this C code?

```
int age = 20;
do {
    age++;
} while (age < 20);
printf("%d", age);
```

- a) 21 b) 20 c) compiler error d) None of the above

12. Which of these is a post-test loop?

- a) for loop
b) while loop
c) do-while loop
d) All of the above

13. what is the output of the following code?

```
for (int i=0; i<3; i++) {  
    printf("%d", i);  
}
```

- a) 123 b) 0 12 c) 0123 d) 12

14. what is the output?

```
int i=5;  
do {  
    printf("%d", i);  
    i--;  
} while (i>3);
```

- a) 54 b) 543 c) 43 d) 5

15) What of the following is a correct for-loop syntax?

- a) for (i=0; i<0; i++) c) for (i=0; i++)
b) for (i<10; i++) d) for (i=0, i<10)

16) what is wrong with this .

16) what is the output of the following c code snippet?

```
int k;  
for (k=1; k<=5; k++);  
{  
    printf("%d", k);  
}
```

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

17) What keyword is used to immediately exit a loop?

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

18) In a for loop, which part is optional?

- a) initialization b) condition c) Increment/Decrement
d) All the above.

19) How many times will the following loop execute?

```
#include <stdio.h>
```

```
int main () {
```

```
    int count = 10;
```

```
    while (count > 0) {
```

```
        count --;
```

```
    }
```

```
    printf ("%d", count);
```

```
    return 0;
```

```
}
```

A) 0 times

B) 1 times

C) 10 times

D) infinite times