C LANG TEST-4 (FLOW CONTROL WITH LOOPS)

Total points 50/50 ?

STUDENT NAME *

VIVA

✓ **1. Which of the following is not a loop in C?** *   1/1

○ A) for

○ B) while

○ C) do-while

◉ D) repeat   ✓

✓ **2. Which loop is guaranteed to execute at least once?** *   1/1

○ A) for

○ B) while

◉ C) do-while   ✓

○ D) if

✓ 3. The initialization, condition, and increment are parts of which loop? *   1/1

○ A) while

○ B) do-while

◉ C) for   ✓

○ D) all of these

✓ 4. The while loop is also known as a ____ loop. *   1/1

◉ A) Entry controlled   ✓

○ B) Exit controlled

○ C) Infinite

○ D) None

✓ 5. The do-while loop is also known as a ____ loop. *   1/1

○ A) Entry controlled

◉ B) Exit controlled   ✓

○ C) Recursive

○ D) Conditional

✓ **6. What is the correct syntax of a for loop?** * 1/1

○ A) for (init; condition; increment) ✓

○ B) for (condition; init; increment)

○ C) for (increment; condition; init)

○ D) for (init, condition, increment)

✓ **7. How many times will the following loop execute?** * 1/1

for (i = 0; i < 5; i++);

○ A) 0

○ B) 4

○ C) 5 ✓

○ D) Infinite

✓ **8. What is the output of:** * 1/1

int i = 1;

while (i <= 3)

{

  printf("%d ", i);

  i++;

}

○ A) 0 1 2

◉ B) 1 2 3 ✓

○ C) 2 3 4

○ D) Infinite loop

✓ **9. The condition of a while loop must be:** * 1/1

○ A) Integer

○ B) Character

◉ C) Boolean expression ✓

○ D) Float

✓ **10. What will happen if the semicolon is placed immediately after the while condition?** *1/1

○ A) Syntax error

○ B) Infinite loop

◉ C) Null statement loop ✓

○ D) None

✓ **11. Which statement is used to terminate a loop immediately?** *   1/1

○ A) stop

○ B) exit

◉ C) break   ✓

○ D) continue

✓ **12. Which statement skips the remaining statements in a loop and goes** *1/1
to next iteration?

○ A) break

◉ B) continue   ✓

○ C) goto

○ D) exit

✓ **13. What is the output?** *   1/1

for (i=1; i<=5; i++)

{

  if (i==3) continue;

  printf("%d ", i);

}

○ A) 1 2 3 4 5

◉ B) 1 2 4 5   ✓

○ C) 2 3 4 5

○ D) 1 2

✓ **14. Which of the following loops can be nested?** * 1/1

○ A) for

○ B) while

○ C) do-while

◉ D) All of these ✓

✓ **15. How many times will this loop run?** * 1/1

int i=0;

while (i < 5)

  i++;

○ A) 0

◉ B) 5 ✓

○ C) 4

○ D) Infinite

✓ **16. What is an infinite loop?** * 1/1

○ A) A loop that runs once

◉ B) A loop that never ends ✓

○ C) A loop that runs twice

○ D) A loop that runs finitely

17. Which loop executes faster generally? *

1/1

- ○ A) for
- ○ B) while
- ○ C) do-while
- ● D) All same ✓

18. In a for loop, the increment section can be: *

1/1

- ○ A) Left empty
- ○ B) Written in the body
- ○ C) Done with multiple variables
- ● D) All of these ✓

19. What happens if the condition in a for loop is always true? *

1/1

- ○ A) Executes once
- ○ B) Compile error
- ● C) Infinite loop ✓
- ○ D) Terminates

✓ **20. Can a for loop have no body?** *   1/1

    ⊙ A) Yes   ✓

    ○ B) No

    ○ C) Only in while loop

    ○ D) Only in do-while

✓ **21. What will happen?** *   1/1

```
for(;;)
   printf("VIVA");
```

    ○ A) Error

    ○ B) Prints once

    ⊙ C) Infinite printing   ✓

    ○ D) None

✓ **22. The keyword break can be used in:** *   1/1

    ○ A) Loops only

    ○ B) Switch only

    ⊙ C) Loops and switch both   ✓

    ○ D) If only

✓ **23. What does this code print?** *   1/1

```
int i=0;

do {

  printf("%d ", i);

  i++;

} while (i<3);
```

○ A) 1 2 3

◉ B) 0 1 2   ✓

○ C) 0 1 2 3

○ D) None

✓ **24. Which loop is most suitable when the number of iterations is known?** * 1/1

○ A) while

○ B) do-while

◉ C) for   ✓

○ D) if

✓ **25. What type of error can cause an infinite loop?** *   1/1

○ A) Syntax error

◉ B) Logical error   ✓

○ C) Runtime error

○ D) None

26. Which of the following is correct? *

✓

1/1

○ A) while(1) is an infinite loop

○ B) for(;;) is an infinite loop

◉ C) Both A and B ✓

○ D) None

27. What is the output of: *

✓

1/1

int i;

for (i=10; i>0; i-=2)

  printf("%d ", i);

◉ A) 10 8 6 4 2 ✓

○ B) 10 9 8 7 6

○ C) 2 4 6 8 10

○ D) 10 8 6 4

28. What is the output of: *

✓

1/1

int i=1;

while(i<=5)

  printf("%d ", i++);c

○ A) 0 1 2 3 4

◉ B) 1 2 3 4 5 ✓

○ C) 2 3 4 5 6

○ D) None

✓ **29. The continue statement cannot be used with:** * 1/1

○ A) for

○ B) while

○ C) do-while

◉ D) switch ✓

✓ **30. Which of the following loops checks the condition at the end?** * 1/1

○ A) for

○ B) while

◉ C) do-while ✓

○ D) all

✓ **31. How many times will the following loop run?** * 1/1

int i=0;

do {

  i++;

} while (i<0);

○ A) 0

◉ B) 1 ✓

○ C) Infinite

○ D) None

✓ **32. What is the output?** * 1/1

for (int i=0; i<10; i+=3)

  printf("%d ", i);

⦿ A) 0 3 6 9 ✓

◯ B) 0 1 2 3

◯ C) 3 6 9

◯ D) 0 4 8

✓ **33. What is the output of nested loop?** * 1/1

for(i=1;i<=2;i++)

  for(j=1;j<=3;j++)

    printf("*");

◯ A) ***

⦿ B) ****** ✓

◯ C) 5 stars

◯ D) None

✓ **34. Which loop is best suited when condition is tested first?** * 1/1

◯ A) do-while

⦿ B) while ✓

◯ C) for

◯ D) switch

✓ **35. What is the value of i after execution?** *   1/1

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

○ A) 2

◉ B) 3   ✓

○ C) 4

○ D) 0

✓ **36. Can we use multiple variables in for loop initialization?** *   1/1

◉ A) Yes   ✓

○ B) No

○ C) Only in while loop

○ D) Only in do-while

✓ **37. What will be printed?** *   1/1

for (i=1; i<=3; i++)

{

  for (j=1; j<=2; j++)

    printf("%d ", j);

}

○ A) 1 2

◉ B) 1 2 1 2 1 2   ✓

○ C) 1 1 1 2 2 2

○ D) None

38. What happens if the condition in a while loop is false initially? *   1/1

- ○ A) Executes once
- ◉ B) Executes twice   ✓
- ○ C) Never executes
- ○ D) Infinite

39. What is the output? *   1/1

```
int i = 1;

while (i <= 3)

{

  printf("%d ", i);

   i += 2;

}
```

- ◉ A) 1 3   ✓
- ○ B) 1 2 3
- ○ C) 2 3
- ○ D) 1 2

✓ **40. What will be the output?** *   1/1

int i = 0;

for (; i<3;)

{

  printf("%d ", i);

  i++;

}

○ A) 1 2 3

⦿ B) 0 1 2   ✓

○ C) Infinite

○ D) Error

✓ **41. Which loop allows omitting all expressions?** *   1/1

⦿ A) for   ✓

○ B) while

○ C) do-while

○ D) None

✓ **42. Which keyword is used to jump to another part of program?** *   1/1

○ A) continue

○ B) break

⦿ C) goto   ✓

○ D) jump

✓ **43. What is the output of:** * 1/1

for (i=1; i<=5; i++)

{

if(i==4) break;

printf("%d ", i);

}

○ A) 1 2 3 4 5

◉ B) 1 2 3 ✓

○ C) 4 5

○ D) None

✓ **44. In nested loops, how many times does inner loop run if outer runs 2** *1/1
times and inner runs 3 times?

○ A) 2

○ B) 3

○ C) 5

◉ D) 6 ✓

✓ **45. Which of the following causes an infinite loop?** * 1/1

○ A) for(i=0;i<10;i++)

◉ B) while(1) ✓

○ C) do while(0)

○ D) None

46. What happens if you omit all three expressions in for loop? *   1/1

○ A) Compile error

◉ B) Infinite loop   ✓

○ C) Executes once

○ D) None

47. Which of the following can replace loops? *   1/1

◉ A) goto   ✓

○ B) if

○ C) switch

○ D) break

48. What is the purpose of loop control statements? *   1/1

◉ A) To skip or terminate loops   ✓

○ B) To start loops

○ C) To print

○ D) To execute functions

49. What is the output? * 1/1

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

- ◉ A) 0 1 ✓
- ○ B) 1 2
- ○ C) 0 1 2
- ○ D) None

50. What type of loop is preferred when you must execute at least once regardless of condition? *1/1

- ○ A) for
- ○ B) while
- ◉ C) do-while ✓
- ○ D) switch

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