Control structure in C

1. Which are not looping structures?

(a) For loop

(b) While loop

(c) Do...while loop

(d) if…else

Answer:
Option **(d)**

2. How many times the following code prints the string “hello”

```
for(i=1;i<=50;i++)

   printf(“Hello”);
```

(a) 1

(b) 50

(c) Zero

(d) None of them

Answer:
Option **(b)**

3. The first expression in a for… loop is

(a) Step value of loop

(b) Value of the counter variable

(c) Condition statement

(d) None of the above

Answer:
Option **(b)**

4. Which among the following is a unconditional control structure.

(a) goto

(b) for

(c) do-while

(d) if-else

Answer:
Option **(a)**

5. Continue statement

(a) Breaks loop and goes to next statement after loop

(b) does not break loop but starts new iteration

(c) exits the program

(d) Starts from beginning of program

Answer:
Option **(b)**

6. How many times following loop will be executed?

```
void main()
{
    int i = 32766;
    while (i<= 32767)
        {
            printf("%d\n",i);
            i = i + 1;
        }
 }
```

(a) 2 times

(b) 1 times

(c) infinite times

(d) loop will not be executed

Answer:
Option **(a)**

7. What is the output of the following code:

```
void main()
{
int i;
for(i=1;i<=10;i++);
 printf("%d\n",i);
}
```

(a) 10

(b) 1 to 10

(c) 11

(d) None of the above

Answer:
Option **(c)**

8. What is the output of the following code:
void main()

```
{
int i;
for(i=65;i<70;i++)
 printf("%c,",i);
}
```

(a) 65,66,67,68,69,70

(b) a,b,c,d,e,

(c) A,B,C,D,E,

(d) A,B,C,D,E

Answer:
Option **(c)**

9. What is the output of following code:

```
void main()
{
int i=5;
switch(i)
{
case 3: printf("three");
case 4: printf("four");
case 5: printf("five");
case 6: printf("six");break;
case 7: printf("seven");
default: printf("default");
}
}
```

(a) five

(b) fivesixsevendefault

(c) fivesix

(d) None of the above

Answer:
Option **(c)**

10. What is the output?

```
void main()
{
int num=10;
if(num)
printf("If Executed");
else
printf("Else Executed");
}
```

(a) If Executed

(b) Else Executed

(c) Error

(d) Blank

Answer:
Option **(a)**

11. What is the output?

```
void main()
{
if(-100)
printf("Negative number");
else
printf("Positive number");
}
```

(a) Positive number

(b) Negative number

(c) Error

(d) Random Behavior

Answer:
Option **(b)**

12. What is the output?

```
void main()
{
if(1 || 0)
printf("C Programming");
else
printf("learn C");
}
```

(a) learn C

(b) Compile Error

(c) C Programming

(d) Error

Answer:
Option **(c)**

13. What is the output?

```
void main()
{
int x= 5;
if(x   < 1);
printf("Hello");
printf("Hi");
}
```

(a) Hi

(b) HelloHi

(c) Error

(d) None of these

Answer:
Option **(b)**

14. What is the output?

```
void main()
{
int x = 5;
if (x   < 1)
printf("hello");
if (x == 5)
printf("hi");
else
printf("no");
}
```

(a) hi

(b) hello

(c) no

(d) error

Answer:
Option **(a)**

15. What is the output?

```
void main()
{
int x = 5;
if (true);
printf("hello");
}
```

(a) hello

(b) Error

(c) Blank

(d) None of these

Answer:
Option **(a)**

16. What is the output?

```
void main()
{
int x = 0;
if (x == 0)
printf("hi");
else
printf("how are u");
printf("hello");
}
```

(a) hi

(b) how are you

(c) hello

(d) hihello

Answer:
Option **(d)**

17. If switch case is used, then

(a) Default case must be present

(b) Default case, if used, should not be the last case

(c) Default case, if used, should be the last case

(d) None of these

Answer:
Option **(c)**

18. What is the output?

```
void main()
{
    int ch;
    printf("enter a value between 1 to 2:");
    scanf("%d", &ch);
    switch (ch)
    {
       case 1:
       printf("1\n");
       default:
       printf("2\n");
    }
```

```
}
//1 is input
```

(a) 1

(b) 1 2

(c) 2

(d) Error

Answer:
Option **(b)**

19. What is the output?

```
void main()
{
    int ch;
    printf("enter a value between 1 to 2:");
    scanf("%d", &ch);
    switch (ch)
    {
        case 1:
        printf("1\n");
        break;
        printf("Hi");
        default:
        printf("2\n");
    }
}
//2 is input
```

(a) 1

(b) Hi 2

(c) 2

(d) Error

Answer:
Option **(c)**

20. What is the output?

```
void main()
{
    int x = 0;
    if (x++)
        printf("true\n");
    else if (x == 1)
        printf("false\n");
}
```

(a) true

(b) false

(c) blank

(d) Error

Answer:
Option **(b)**

21. What is the output?

```
int main()
{
    int x = 0;
    if (x == 1)
        if (x >= 0)
            printf("true\n");
        else
            printf("false\n");
}
```

(a) true

(b) false

(c) blank

(d) Error

Answer:
Option **(c)**

22. Choose a C Conditional Operator from the list.

(a) ?:

(b) :?

(c) :<

(d) <:

Answer:
Option **(a)**

23. What is alternate name of conditional operator?

(a) Comparison operator

(b) If-else Operator

(c) Binary operator

(d) Ternary operator

Answer:
Option **(d)**

24. Choose a syntax for C Ternary Operator from the list.

(a) condition ? expression1 : expression2

(b) condition : expression1 ? expression2

(c) condition ? expression1 < expression2

(d) condition < expression1 ? expression2

Answer:
Option **(a)**

25. What is the output?

```
void main()
{
    int a=0;
    a = 5<2 ? 4 : 3;
    printf("%d",a);
}
```

(a) 4

(b) 3

(c) 5

(d) 2

Answer:
Option **(b)**

26. The C code ‘for(; ;)’ represents an infinite loop. It can be terminated by ___

(a) break

(b) exit(0)

(c) abort()

(d) terminate

Answer:
Option **(a)**

27. Which for loop has range of similar indexes of ‘i’ used in for (i = 0;i < n; i++)?

(a) for (i = n; i>0; i--)

(b) for (i = n; i >= 0; i--)

(c) for (i = n-1; i>0; i--)

(d) for (i = n-1; i>-1; i--)

Answer:

Option **(d)**

28. What is the output?

```
void main()
{
    int k = 0;
    for (k)
        printf("Hello");
}
```

(a) Error

(b) Hello

(c) Blank

(d) Infinite loop

Answer:
Option **(a)**

29. What is the output?

```
void main()
{
    int k;
    for (k = -3; k < -5; k++)
        printf("Hello");
}
```

(a) Hello

(b) Infinite Hello

(c) Error

(d) Blank

Answer:
Option **(d)**

30. In the given loop construct, which one is executed only once always? for(exp1; exp2; exp3)

(a) exp1

(b) exp3

(c) exp1 and exp3

(d) exp1, exp2 and exp3

Answer:
Option **(a)**

31. The continue statement cannot be used with

(a) for

(b) while

(c) do while

(d) switch

Answer:
Option **(d)**

32. Which loop is guaranteed to execute at least one time?

(a) for

(b) while

(c) do while

(d) None of these

Answer:
Option **(c)**

33. do-while loop terminates when conditional expression returns?

(a) One

(b) Zero

(c) Non - zero

(d) None of these

Answer:
Option **(b)**

34. if the condition is missing in a for loop?

(a) it is assumed to be present and taken to be false

(b) it is assumed to be present and taken to the true

(c) it results in a syntax error

(d) execution will be terminated

Answer:
Option **(b)**

35. Loops in C Language are implemented using?

(a) while Block

(b) for Block

(c) do while Block

(d) All of these

Answer:

Option **(d)**

36. What is the output?

```
void main()
{
    while(true)
    {
        printf("Hello");
        break;
    }
}
```

(a) Hello

(b) Hello is printed infinite times

(c) Blank

(d) Error

Answer:
Option **(d)**

37. What is the output?

```
void main()
{
    int a=5;
    while(a==5)
    {
        printf("Hello");
        break;
    }
}
```

(a) Hello

(b) Hello is printed infinite times

(c) Blank

(d) Error

Answer:
Option **(a)**

38. What is the output?

```
void main()
{
    int a=5;
    while(a=10)
    {
        printf("Hello\n");
        break;
    }
```

```
    printf("India");
}
```

(a) India

(b) Hello
India

(c) Hello is printed infinite times

(d) Error

Answer:
Option **(b)**

39. What is the output?

```
void main()
{
    int a=5;
    while(a >= 3);
    {
        printf("Hello ");
    }
}
```

(a) Hello

(b) Hello is printed infinite times

(c) Blank

(d) Error

Answer:
Option **(c)**

40. What is the output?

```
void main()
{
    int a=25;
    while(a <= 27)
    {
        printf("%d ", a);
        a++;
    }
}
```

(a) 25 25 25

(b) 25 26 27

(c) 27 27 27

(d) Error

Answer:
Option **(b)**

41. What is the way to suddenly come out of or Quit any Loop in C Language?

(a) continue;

(b) break;

(c) stop;

(d) quit;

Answer:
Option **(b)**

42. What is the default return type if it is not specified in function definition?

(a) void

(b) int

(c) float

(d) None of these

Answer:
Option **(b)**

43. Every C Program should contain which function?

(a) printf()

(b) show()

(c) scanf()

(d) main()

Answer:
Option **(d)**

44. Any C Program

(a) Must contain at least one function

(b) Need not contain any function

(c) Needs input data

(d) None of these

Answer:
Option **(a)**

45. Function have_____

(a) Local scope

(b) Block scope

(c) File scope

(d) No scope

Answer:
Option **(c)**

46. Which is not a correct function declaration?

(a) int funct(char x, char y);

(b) double funct(x)

(c) void funct();

(d) char x();

Answer:
Option **(b)**

48. 06 What is the return type of the function with declaration:
int func(char x, float v, double t);

(a) char

(b) int

(c) float

(d) double

Answer:
Option **(b)**

49. Which of the following is a valid function call (assuming the function exists)?

(a) funct;

(b) funct x, y;

(c) funct();

(d) int funct();

Answer:
Option **(c)**

50. In C, function parameters are always

(a) Passed by value

(b) Passed by reference

(c) Passed by value result

(d) None of these

Answer:
Option **(a)**

51. What is use of functions?

(a) Helps to avoid repeating a set of statements many times

(b) Enhances the logical clarity of the program

(c) Makes debugging task easy

(d) All of these

Answer:
Option **(d)**

52. Arguments passed to a function in C language are called ____

(a) Formal arguments

(b) Actual arguments

(c) Definite arguments

(d) Ideal arguments

Answer:
Option **(b)**

53. Arguments received by a function in C language are called ___

(a) Formal arguments

(b) Actual arguments

(c) Definite arguments

(d) Ideal arguments

Answer:
Option **(a)**

54. What is the default return value if it is not specified in function definition?

(a) 0

(b) -1

(c) 1

(d) None of these

Answer:
Option **(c)**

55. What is the output?

```
main()
{
    int i=abc(10);
```

```
    printf("%d",--i);
}
int abc(int i)
{
    return i++;
}
```

(a) 10

(b) 9

(c) 11

(d) None of these

Answer:
Option **(b)**

56. Which one is the correct statement?

(a) The body of a function should have only one return statement.

(b) Function can return only one value in call by value environment.

(c) Function can return multiple values.

(d) None of these

Answer:
Option **(b)**

57. Which is the complete function?

(a) int fun();

(b) int func(int x)
{
return x=x+1;
}

(c) void fun(int)
{
printf("Hello");
}

(d) void fun(x)
{
printf("Hello");
}

Answer:
Option **(b)**

58. Choose the correct statement about Functions in C

(a) A Function is a group of C statements that can be reused any number of times.

(b) Every Function has a return type.

(c) Every Function may not return a value.

(d) All the these

Answer:
Option **(d)**

59. What is the output?

```
void show();
void main()
{
    show();
    printf("WORLD ");
 }
void show()
{
    printf("HELLO ");
}
```

(a) WORLD HELLO

(b) HELLO WORLD

(c) WORLD

(d) Error

Answer:
Option **(b)**

60. How many values can a C Function return at a time?

(a) Only one value

(b) Maximum of two values

(c) Maximum of three values

(d) Any number of values

Answer:
Option **(a)**

61. What is the output?

```
int show()
{
    return 10;
}
void main()
{
    int a;
    printf("COUNT=");
    a=show();
```

```
    printf("%d", a);
}
```

(a) COUNT=

(b) COUNT=0

(c) COUNT=10

(d) Error

Answer:
Option **(c)**

62. What is the output?

```
int show()
{
    return 15;
    return 35;
}
void main()
{
    int a;
    printf("COUNT=");
    a=show();
    printf("%d", a);
}
```

(a) COUNT=15

(b) COUNT=35

(c) COUNT=0

(d) Error

Answer:
Option **(a)**

63. What is the output?

```
int show(int b)
{
    printf("%d,",b);
}
void main()
{
   show(5);
   show(10);
}
```

(a) 10,5

(b) 5,10

(c) 0,0

(d) Error

Answer:
Option **(b)**

64. What is the return-type of the function sqrt()?

(a) int

(b) float

(c) double

(d) depends on the data type of the parameter

Answer:
Option **(c)**

65. Choose correct statements about C Language pass by value.

(a) Pass by value copies the variable value in one more memory location.

(b) Pass by value does not use Pointers.

(c) Pass by value preserves value of original variable

(d) All of these

Answer:
Option **(d)**

66. What is the output?

```
int myshow(int b)
{
    printf("%d, ", b);
}
void main()
{
   int a=10;
   myshow(a);
   myshow(&a);
}
```

(a) 10, 10,

(b) 10, Some address

(c) 10, Some address (With compiler warning)

(d) Error

Answer:
Option **(c)**

67. What is the output?

```
int myshow(int *);
void main()
{
   int a=10;
   myshow(&a);
}
int myshow(int *k)
{
    printf("%d", *k);
}
```

(a) Some address

(b) 10

(c) Blank

(d) Error

Answer:
Option **(b)**

68. What is the output?

```
void myshow(int *);
void main()
{
   int a=10;
   printf("%d ",a);
   myshow(&a);
   printf("%d",a);

}
void myshow(int *k)
{
   *k=20;
}
```

(a) 10 10

(b) 20 20

(c) 10 20

(d) Error

Answer:
Option **(c)**

69. Following function belongs to which category?

```
void print10()
{
printf("10");
```

```
}
```

(a) Function with argument but no return value

(b) Function with no argument and no return value

(c) Function with no argument but returns a value

(d) Function with argument and returns a value

Answer:
Option **(b)**

70. Following function belongs to which category?

```
int get10(void)
{
return 10;
}
```

(a) Function with argument but no return value

(b) Function with no argument and no return value

(c) Function with no argument but returns a value

(d) Function with argument and returns a value

Answer:
Option **(c)**

71. Following function belongs to which category?

```
void showNumber(int num)
{
printf("Number: %d", num);
}
```

(a) Function with argument but no return value

(b) Function with no argument and no return value

(c) Function with no argument but returns a value

(d) Function with argument and returns a value

Answer:
Option **(a)**

72. When function calls itself, it is known as _____.

(a) recursion

(b) exit control loop

(c) nested loop

(d) user-defined function

Answer:
Option **(a)**

73. Recursion is a process in which a function calls

(a) Itself

(b) another function

(c) main() function

(d) None of these

Answer:
Option **(a)**

74. A recursive function can be replaced with __ in C

(a) for loop

(b) while loop

(c) do while loop

(d) All of these

Answer:
Option **(d)**

75. A recursive function is faster than __ loop

(a) for loop

(b) while loop

(c) do while loop

(d) None of these

Answer:
Option **(d)**

76. A recursive function without if and else conditions will always lead to?

(a) Finite loop

(b) Infinite loop

(c) Incorrect result

(d) Correct result

Answer:
Option **(b)**

77. What is the C keyword that must be used to get the expected result using Recursion?

(a) printf

(b) void

(c) break

(d) return

Answer:
Option **(d)**

78. Recursion is similar to which of the following?

(a) switch case

(b) loop

(c) if-else

(d) if elseif else

Answer:
Option **(b)**

79. How many functions are required to create a recursive functionality?

(a) One

(b) Two

(c) More than two

(d) None of these

Answer:
Option **(a)**

80. What is the output?

```
int sum(int);
int main()
{
    int b;
    b = sum(4);
    printf("%d", b);
}
int sum(int x)
{
    int k=1;
    if(x<=1)
     return 1;
    k = x + sum(x-1);
    return k;
}
```

(a) 10

(b) 11

(c) 12

(d) 15

Answer:

Option **(a)**

81. What is the output?

```
int mul(int);
int main()
{
    int b;
    b = mul(3);
    printf("%d", b);
}
int mul(int x)
{
    if(x<=1)
     return 1;
    return (x * mul(x-1));
}
```

(a) 2

(b) 3

(c) 6

(d) 1

Answer:
Option **(c)**

82. The data structure used to implement recursive function calls _____

(a) Array

(b) Linked List

(c) Queue

(d) Stack

Answer:
Option **(d)**

83. What is the output?

```
main()
{
    int n,i;
    n=f(6);
    printf("%d",n);
}
f(int x)
{
    if(x==2)
            return 2;
    else
```

```
    {
        printf("+");
        f(x-1);
    }
}
```

(a) ++++2

(b) +++++2

(c) +++++

(d) 2

Answer:
Option **(a)**

84. What is the output?

```
main()
{
    int n=10;
    int f(int n);
    printf("%d",f(n));
}
int f(int n)
{
    if(n>0)
        return(n+f(n-2));
}
```

(a) 10

(b) 80

(c) 30

(d) Infinite loop

Answer:
Option **(c)**

85. What is the output?

```
int main()
{
printf("Hello");
main();
return 0;
}
```

(a) Hello is printed once

(b) Hello infinite number of times

(c) Hello is not printed at all

(d) 0 is returned

Answer:
Option **(b)**

95. Which of the following is true?

(a) Recursion is always better than iteration

(b) Recursion uses more memory compared to iteration

(c) Recursion uses less memory compared to iteration

(d) Iteration is always better and simpler than recursion

Answer:
Option **(b)**

96. What is the output of func(4);?

```
int func(int number)
{
    if(number <= 0)
        return 1;
    else
        return number * func(number-1);
}
```

(a) 12

(b) 24

(c) 1

(d) 0

Answer:
Option **(b)**

97. What is the output of func(3,8)?

```
int func(int a, int b)
{
    if(b==0)
        return 0;
    if(b==1)
        return a;

    return a + func(a,b-1);
}
```

(a) 11

(b) 24

(c) 22

(d) 21

Show Answer

98. What is the output of print(12)?

```
void print(int n)
{
    if (n == 0)
        return;
    printf("%d", n%2);
    print(n/2);
}
```

(a) 0011

(b) 1100

(c) 1001

(d) 1000

Answer:
Option **(a)**

99. What is the output of sum(8)?

```
int sum(int n)
{
    if (n==0)
       return n;
    else
       return n + sum(n-1);
}
```

(a) 40

(b) 8

(c) 36

(d) 15

Answer:
Option **(c)**

100. What is the output?

```
int rec(int num)
{
    return (num) ? num%10 + rec(num/10):0;
}
void main()
{
    printf("%d",rec(4567));
}
```

(a) 4

(b) 12

(c) 22

(d) 21

Answer:
Option **(c)**