Top 20 C programming language MCQs with answer

Topics : C Interview Questions
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There are 20 multiple-choice questions (MCQs) related to the C programming language along with their answers:

1. What does the acronym "C" stand for in C programming?
a) Computer
b) Common
c) Code
d) Central

Answer: b) Common

2. Which of the following is a valid identifier in C?

a) 2variable
b) _variable
c) switch
d) float

Answer: b) _variable

3. What is the size of the `int` data type in C on a 32-bit system?
a) 2 bytes
b) 4 bytes
c) 8 bytes
d) Depends on the compiler

Answer: b) 4 bytes

4. In C, what is the purpose of the `typedef` keyword?
a) To define a new type
b) To declare a variable
c) To include a header file
d) To create a pointer

Answer: a) To define a new type

5. What is the output of the following code?

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

```c
int main() {
    printf("%d", sizeof(5.5));
    return 0;
}
```

a) 2
b) 4
c) 8
d) Compiler Error

Answer: b) 4

6. Which header file is used for dynamic memory allocation in C?
a) stdlib.h
b) math.h
c) string.h
d) stdio.h

Answer: a) stdlib.h

7. What is the purpose of the break statement in C?
a) Exits the program
b) Exits the loop or switch statement
c) Skips the rest of the code inside a loop
d) Jumps to a specific label

Answer: b) Exits the loop or switch statement

8. How do you declare a constant in C using #define?
a) constant = 5;
b) define constant 5
c) #define constant 5
d) const constant = 5;

Answer: c) #define constant 5

9. What is the purpose of the getchar() function in C?
a) Reads a character from the keyboard
b) Prints a character to the console
c) Clears the screen
d) Closes a file

Answer: a) Reads a character from the keyboard

10. Which symbol is used for the modulus operation in C?
a) %
b) /
c) *
d) &

Answer: a) %

11. What is the output of the following code?
```c
 #include <stdio.h>


int main() {
    int i = 10;
    printf("%d", i++);
    return 0;
}
```

a) 10
b) 11
c) 12
d) Compiler Error

Answer: a) 10

12. How do you initialize an array in C?
a) `int arr[];`
b) `int arr[5] = {1, 2, 3, 4, 5};`
c) `arr = {1, 2, 3, 4, 5};`
d) `int arr[5];`

Answer: b) int arr[5] = {1, 2, 3, 4, 5};

13. What is the purpose of the `static` keyword in C?
a) Declares a global variable
b) Allocates dynamic memory
c) Specifies a file scope
d) Initializes a variable

Answer: c) Specifies a file scope

14. What is the role of the `void` keyword in a function declaration?
a) Indicates that the function returns no value
b) Specifies the return type of the function
c) Declares a variable
d) Marks the function as deprecated

Answer: a) Indicates that the function returns no value

15. How do you close a file in C?

a) `fclose(file);`
b) `close(file);`
c) `file.close();`
d) `closeFile(file);`

Answer: a) fclose(file);

16. What is the purpose of the `sizeof` operator in C?
a) Returns the size of a variable
b) Returns the size of a function
c) Returns the size of a datatype
d) Returns the size of a pointer

Answer: a) Returns the size of a variable

17. Which of the following is the correct syntax for a `for` loop in C?
a) `for (i = 0; i < 10; i++)`
b) `for i = 0; i < 10; i++`
c) `for (int i = 0; i < 10)`
d) `for (i < 10; i++)`

Answer: a) for (i = 0; i < 10; i++)

18. What is the role of the `scanf` function in C?

a) Prints formatted output to the console
b) Reads formatted input from the console
c) Allocates dynamic memory
d) Opens a file for reading

Answer: b) Reads formatted input from the console

19. How do you access the value stored at a pointer in C?
a) `*ptr`
b) `&ptr`
c) `ptr.value`
d) `ptr->value`

Answer: a) *ptr

20. What is the purpose of the `malloc` function in C?
a) Allocates memory for a variable
b) Frees allocated memory
c) Initializes memory to zero
d) Declares a variable

Answer: a) Allocates memory for a variable