[1] What is the name of the symbol "\n" and what is the function of it?

Ans: The name of the symbol of "\n" is new line.

The newline character is the symbol of "\n" is referred to as. It is called an escape sequence and it forces the cursor to change its position to the beginning of the next line on screen.

[2] Why clrscr() is used?

Ans: It is used to clear the console screen.

[3] How much storage space does 1 character typically occupy?

Ans: 1 character typically occupies 1 byte of storage space.

[4] Where will the value of a variable be printed in the 'printf' function?

Ans: In the 'printf' function in C programming, the value of a variable is printed based on the format specifier used in the format string. The format specifier indicates how the variable should be formatted and displayed. It is a placeholder that gets replaced with the actual

CamScanner

value during runtime.

Example: int x = 10
printf ("The value of x is %d", x);

In this case %d is the format specifier for integers.

[5] What is a parameter?

Ans: The variables that are defined when the function is declared are known as parameters.

[6] What do you mean by formatted output?

Ans: In C programming, formatted output refers to the process of displaying data on the screen or writing it to a file in a specified format. The 'printf' function is commonly used for formatted output in C.

Example:
```
# include <stdio.h>
# include <conio.h>
int main () {
    int a, b;
    clrscr ();
    a = 3;
    b = 4;
printf ("%d + %d = %d", a, b, a+b);
    }
```

7. What do you mean by formatted input?

Ans: In C programming, formatted input refers to the process of reading input from the user or a file while specifying the expected format of the data. The 'scanf' function is commonly used for formatted input in C.

Example: #include <stdio.h>

```
int main () {
    int num;
    scanf ("%d", &num);
}
```

8. What is comment line?

Ans: In programming, a comment line is a line of code that is not meant to be executed by the computer but is included in the source code to provide information or explanations for human readers.

The leading characters // are added to the beginning of each line when commenting. For multi-line comment {'/* comment */'} is used

[9] What is a garbage value?

Ans: A garbage value in C refers to a value that is stored in a variable without being initialized or assigned a proper value.

[10] What is control structure?

⟹ A control structure in programming refers to the decision-making and flow control mechanism that dictate how the instructions within a program are executed.

There are three main types of control structures:

1. Sequential Structure: The default structure where statements are executed in a sequential order, one after the other.

2. Selection Structure (Conditional statements):

It involves decision making, allowing the program to execute different statements based on certain conditions

3. Iteration Structure (Loops) : It involves repeating a certain block of code multiple times, allowing for efficient repetition of tasks.

(11) How can one identify a function in C programming ?

Ans: In C programming, one can differentiate a function by its declaration, definition and invocation.

Declaration : Tells the compiler about function's name, return type and parameter types.

Definition : Provides the actual implementation of the function specifying what it does.

Invocation (call) : Parentheses are used to indicate a function call. It involves using the function in a code by providing arguments and potentially using the return value.

Example :

```
# include <stdio.h>
int add (int a, int b) {
        return a+b;
}
int main () {
    printf ("The Result : %d \n", add (3,5));
    return 0;
}
```

12 What is Boolean expression?

Ans : In C, Boolean is data type that contains two types of values, i.e., 0 and 1.

The bool in C is a fundamental data type in most that can hold one of two values ; true or false. It is used to represent logical values. Here, '0' represent false value, while '1' represent true value

Boolean expression typically involves relational and logical operators.

Example : # include <stdio.h>

```
int main () {
        int x = 5;  int y = 10;
if (x<y){
    // code runs when x is less than y
}
```

13/ What is simple statement?

Ans: In C, a simple statement is a single, standalone statement that performs a specific action. Simple statements are not composed of smaller statements and do not include control structures.

Example: # include <stdio.h>

```
int main(){
  printf("This is a simple statement.\n");
  retwan 0;
  }
```

14/ What is compound statement?

Ans: A compound statement, also known as a block, is a group of statements in a programming language that are treated as a single unit.

Compound statements are commonly used in control structures such as 'if' statements, loops ('for', 'while') and function bodies.

Example: # include <stdio.h>

```
int main (){
    int x=5;
    if (x>0){
{ int y=10;
    int sum = x+y;
    printf ("The sum is %d", sum);
    }
}
return 0;
}
```

[15] What is loop?

Ans: A loop is a programming construct that allows a set of instructions to be repeatedly executed as long as a certain condition is true.

There are several types of loops in programming, such as: 'for', 'while', 'do-while' loop.

CamScanner

16/ What are the challeges of using scanf() ?

Ans: The limitations of scanf() are as follow:

scanf() cannot work with the string of charcactors.
It is not possible to enter a multiword string into a
single variable using scanf().
To avoid this gets() function is used. It gets a string
from the keyboard and is terminated when enter key is presed

17/ What is string in c progcamming?

Ans: A string in c progcamming is a sequence of
charcactors terminated with a null character '10'.

18/ Difference between formal parcameters
and actual parcameters.

Ans:
(i) Forcmal parcameters are the parcameters
that appear in the functim declaratim on
definition.
Actual parcameters, on the other hand, are
the values or expressions that are passed to

a function when it is called.

(ii) Formal parameters are like placeholders for the values that will be passed into the function.

Actual parameters represent real values that will be used by the function during execution.

(iii) Formal parameters are variables or identifiers used in the function signature to represent the values that the function expects to receive.

Actual parameters are to match the data type and order of the formal parameters.

19. What are the differences between the main function and a calling function ?

⇒

Main function	Calling function
(i) It is the entry point of every C program.	Calling function is any function that calls another function
(ii) The main function has a return type of 'int' and typically returns an integer value to the operating system.	Other functions can have various return types, including 'void' or other data types.
(iii) The 'main' function has a specific name, and it must be called 'main'.	Calling functions can have any valid C identifier as their name.

20. What is a nested loop?

Ans: A nested loop in a programming refers to a loop (a set of statement that are executed repeatedly) that is contained within another loop.

Example: #include <stdio.h>

```
int main() {
    for (int i=1; i<=3; i++){
        for (int j=1; j<=3; j++) {
            printf ("%d, %d", i, j);
        }
    printf ("\n");
    }
return 0;
}
```

21/ What is parameter?

Ans: A parameter is a variable or placeholder in a function. It serves as a way to define what kind of data or values a function expects to receive.

22/ What is arguement?

Ans: An arguement is a specified value or expression that is passed to a function when it is called.

23. characteristics of Private section of a class.

Ans: In C++, a class is a user defined data type that encapsulates data and methods that operate on that data.

characteristics of Private section of a class:

(i) Visibility: Members in the 'private' section are only accessible within the class itself. They are not directly accessible from outside the class.

(ii) Member Functions: Private member functions are designed for internal use within the class and are not part of the public interface.

24. characteristics of public section of a class:

(i) Visibility: Members in the 'public' sections are accessible from outside the class.

(ii) Member functions: These functions represent the operations that external code can perform on the class.

25/ How to call a member function through object ?

⟹

In C++, one can call a member function through an object using the dot(.) operator.

Example : #include <iostream>

```
class MyClass {
  public :
        void myF() {
              std::cout<< " calling myF \n";
        }
};
int main()
  MyClass myObj ;
  MyObj.myF();
  return 0;
}
```

25/ What is file buffer ?

Ans: In c programming, a file buffer is a temporary storage area used to hold data that is being read from or written to a file.

26/ Why do we use "felose" ?

Ans: In c programming, 'felose' function is used to close a file stream that was previously opened using the 'fopen' function or a similar file opening function.

A file must be closed as soon as all operations on it have been completed. This ensures that all outstanding information associated with the file is flushed out from the buffers and all links to the file are broken.
Besides, we we use the felose() function for the following purposes:

(i) To release file resources
(ii) To ensure data integrity
(iii) To prevent data corruption
(iv) To avoid resource leaks.

28/ Write details about different file modes.

⟹

In C, file modes are used when opening a file used using 'fopen' function. These modes determine the operations that can be performed on the file and whether the file will be created or overwritten.

Different file modes :

(i) "r" – Read mode : Opens the file for reading.

(ii) "w" – Write Mode : Opens the file for writing. If the file already exists, it truncates the file to zero length. Creates the file if it does not exist.

(iii) "r+" – Read / Write Mode : Opens the file for both reading and writing. file must exist.

(iv) "w+" – Read / Write Mode : Opens the file for both reading and writing. Creates the file if it doesn't exist.

(v) "a+" – Read / Append Mode : Opens the file for both reading and writing. If the file already exists, it preserves the existing content. Creates the file if it doesn't exist.

CamScanner