1. **What are the bitwise operators in C?**

The operators that perform operations like addition, multiplication at the bit-level are called bitwise operators

1. **What is the result of the expression 14%-5? Explain it.**

Result is -1

Since the operand here has a negative sign we take the multiple which is >= the operand.

1. **Define union.**

A **union** is a special data type available in C that allows to store different data types in the same memory location. You can define a union with many members, but only one member can contain a value at any given time.

1. **What are string handling functions?**

Essay question: https://www.programiz.com/c-programming/string-handling-functions

1. **What are file handling functions?**

Essay question: https://www.programiz.com/c-programming/c-file-input-output

1. **Describe the various categories of functions with example.**

* **Standard library functions**

Standard library functions are also known as **built-in functions**. Functions such as puts(), gets(), printf(), scanf() etc are standard library functions. These functions are already defined in header files so we just call them whenever there is a need to use them.

* **User Defined functions**

The functions that we create in a program are known as user defined functions or in other words you can say that a function created by user is known as user defined function.

1. **Linear search and Binary search**

A linear search scans one item at a time, without jumping to any item.

1. The worst case complexity is O(n), sometimes known an O(n) search.
2. Time taken to search elements keep increasing as the number of elements are increased.

A binary search however, cut down your search to half as soon as you find middle of a sorted list.

1. The middle element is looked to check if it is greater than or less than the value to be searched.
2. Accordingly, search is done to either half of the given list