

ACM Summer Challenge 2020

BIT Manipulation

In computers, every variable value is stored in a sequence of 1s and 0s called it's binary notation. These are called BITS (Binary Digits). You must be using ints and long long ints till now. Well, they are stored as 32 bit and 64 bit integers. There are some coding questions that can be solved using this representation of variables.

BITS and their manipulation can be done using certain operations. These operations are called Bitwise Operations.

You can use these bitwise operations to check whether any condition specified in the question is correct or not, or use corresponding bits to create the bits of answer required.

With this, we introduce you to the below links that are a source of great information about this subject.

Bitwise Operators : <https://www.geeksforgeeks.org/bitwise-operators-in-c-cpp/>

Important Tactics : <https://www.geeksforgeeks.org/bits-manipulation-important-tactics/>

Some of you might like to watch videos regarding the topic:

<https://www.youtube.com/watch?v=xXKL9YBWgCY>

<https://www.youtube.com/watch?v=jqJ5s0770Ko>

After going through all this content, we recommend you try some questions:

<https://codeforces.com/problemset?tags=bitmasks>

<https://www.hackerrank.com/domains/algorithms/bit-manipulation>

Note that these links are question banks for the topic. You may find them having varied difficulties. Please initiate from easy questions so that you may not get demotivated.

Competitive Coding is fun when everything seems to work. Your real perseverance is examined when you fail at first go and how you deal with the situation later. The concept is similar to how you deal with life.

Stay healthy, stay safe and keep coding!