Practice Questions

Bitwise Operators and Loops

Attempt the following questions using Bitwise Operators and Loops. Aim for generalized code. For constraints consider only int data type and keep in mind that int data type is of 32 bits.

For each question, consider using binary form of the integers in order to understand the pattern and then give it a go.

1. Check whether the integer is even or odd.
2. Extract/Set the right most bit.
3. Multiply an integer by 2^n, where n is any whole number.
4. Divide an integer by 2^n, where n is any whole number.
5. Set nth bit.
6. Extract nth bit.
7. Print binary representation of an integer.
8. Determine whether the binary of the given integer has even/odd number of 1's.
9. Swap adjacent bits of a given integer.
10. Check whether an integer can be written in the powers of 2.
11. Find $\log_2$ of an integer.