

CSE-06131114: Lab Works-10

1. Write a program to check whether an **unsigned int** is odd or even. Use bitwise **AND (&)** to perform the task (Mask=1).
2. Write a program to check whether a **short int** is positive or negative. Use bitwise **AND (&)** to perform the task (Mask=32768).
3. C does not have a rotate operator. A **rotate** is similar to a shift, except that the bit shifted off one end is inserted onto the other. For example, **10100000** rotated left one place is **01000001**. Write a function called **rotate_left()** that rotates a **byte** left one position each time it is called.
4. Left shifting an **unsigned int** by 1 bit is equivalent to multiplying the value by 2. Write a function **power2()** that takes two **unsigned** arguments **number** and **pow** and calculates

number * 2^{pow}

Use the shift operator to calculate the result.