

# C PRACTICE EXERCISES – OPERATORS (NO BITWISE)

These exercises focus on logical (`&&`, `||`, `!`), relational, unary, assignment and conditional (`?:`) operators. Bitwise operators are intentionally excluded. Assume all inputs are valid unless stated otherwise. Write full C programs for each question.

**Exercise 1:** Write a program that takes two integers and prints whether both numbers are positive using logical AND.

**Exercise 2:** Write a program that takes two integers and prints whether at least one of them is negative using logical OR.

**Exercise 3:** Write a program that checks whether a number is NOT divisible by 5 using logical NOT.

**Exercise 4:** Take three integers a, b, c. Print true if a is greater than b AND b is greater than c.

**Exercise 5:** Take age as input. Print whether the person is eligible to vote (age  $\geq 18$ ) AND is a citizen (take citizen as 1 or 0).

**Exercise 6:** Write a program that checks if a number lies outside the range 10 to 50 using logical operators.

**Exercise 7:** Take marks of a student. Print pass if marks are greater than or equal to 35 AND less than or equal to 100.

**Exercise 8:** Write a program to check whether a character is NOT a lowercase letter.

**Exercise 9:** Take two numbers. Print true if exactly one of them is zero using logical operators.

**Exercise 10:** Write a program that checks if a number is divisible by 3 OR divisible by 7.

**Exercise 11:** Take username length and password length. Login is valid if username length  $> 4$  AND password length  $> 6$ .

**Exercise 12:** Write a program that checks whether a year is NOT a leap year using logical NOT.

**Exercise 13:** Take temperature as input. Print alert if temperature is less than 0 OR greater than 45.

**Exercise 14:** Write a program that uses the ternary operator to find the greater of two numbers.

**Exercise 15:** Write a program that uses nested ternary operators to find the largest of three numbers.

**Exercise 16:** Take an integer. Print whether it is positive, negative or zero using conditional operator.

**Exercise 17:** Write a program that checks if a number is between 1 and 100 but NOT equal to 50.

**Exercise 18:** Take two integers x and y. Print true if x is non-zero AND y is non-zero.

**Exercise 19:** Write a program to validate a login where username is correct OR admin override is enabled.

**Exercise 20:** Take a number. Print whether it is odd and greater than 10 using logical operators.