

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 >= 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.