

# Python Programming (B.Tech CSE - Sem 2)

## Experiment 02 – Exercise Sheet

### Conditional Statements

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**Repository:** <https://github.com/tali7c/Python-Programming>

**Note:** This document contains only problem statements (no solutions).

## Instructions

- Write a separate program for each exercise.
- Use `if/elif/else` clearly and validate input.
- Print outputs in a clean, user-friendly format.

## Exercises

### Exercise 01: Divisible by 3 and 5

Check whether the given number is divisible by 3 and 5 both.

### Exercise 02: Multiple of 5

Check whether a given number is multiple of five or not.

### Exercise 03: Greatest Among Two Numbers

Find the greatest among the two numbers. If numbers are equal then print "Numbers are equal".

### Exercise 04: Greatest Among Three Numbers

Find the greatest among three numbers assuming no two values are the same.

### Exercise 05: Quadratic Equation Roots

Check whether the quadratic equation has real roots or imaginary roots. Display the roots.

### Exercise 06: Leap Year

Find whether a given year is a leap year or not.

### Exercise 07: Next Date

Write a program which takes any date as input and displays the next date of the calendar.

**Example:**

Input: day=20, month=9, year=2005

Output: day=21, month=9, year=2005

### Exercise 08: Grade Sheet

Print the grade sheet of a student for the given range of CGPA. Scan marks of five subjects and calculate the percentage.

**Formula:**

$\text{CGPA} = \text{percentage} / 10$

**CGPA ranges:**

- 0.0 to 3.4  $\rightarrow$  F
- 3.5 to 5.0  $\rightarrow$  C+
- 5.1 to 6.0  $\rightarrow$  B
- 6.1 to 7.0  $\rightarrow$  B+
- 7.1 to 8.0  $\rightarrow$  A
- 8.1 to 9.0  $\rightarrow$  A+
- 9.1 to 10.0  $\rightarrow$  O (Outstanding)

**Sample (format idea):**

- Name, Roll Number, SAP ID, Semester, Course
- Subject-wise marks (5 subjects)
- Percentage, CGPA, Grade