Python Practice Sheet – Follow■Up (Loops, Functions & Data Structures)

Instructions:
Solve all tasks again using Python.
This is a follow-up sheet: logic must be written from scratch.
Do not reuse previous solutions.

TASK 1 – Function + Loop

Write a function that prints numbers from n down to 1 using a loop.

TASK 2 – Function Return

Write a function that returns True if a number is even, otherwise False.

TASK 3 – While Loop Logic

Ask numbers until a negative number is entered, return count.

TASK 4 – For Loop Algorithm

Print all numbers between 1 and 100 divisible by 7.

TASK 5 – Conditional Function

Print Pass if score >= 50 otherwise Fail.

TASK 6 – List Processing

Return the largest number in a list without using max().

TASK 7 – List Comprehension

Return numbers between 1 and 100 divisible by 3.

TASK 8 – Nested Loop

Print a rectangle of stars using rows and columns.

TASK 9 – Matrix Algorithm

Build a matrix with sequential numbers.

TASK 10 – String Algorithm

Count how many words are in a sentence.

TASK 11 – Dictionary Creation

Convert two lists into a dictionary.

TASK 12 – Dictionary Loop

Print dictionary values greater than 10.

TASK 13 – Algorithm Logic

Calculate average of a list.

TASK 14 – Input Validation

Ask for password until correct.

TASK 15 – Mixed Types

Count how many strings exist in a list.

TASK 16 – Nested Lists

Sum all numbers inside list of lists.

TASK 17 – Filter Function

Remove negative numbers from a list.

TASK 18 – Pattern Generator

Print a right-aligned triangle.

TASK 19 – Dictionary Comprehension

Create dictionary of numbers and their cubes.

TASK 20 – Final Challenge

Program with 3 functions managing employee salaries.