Teaching Guidelines for

Logic Building & Problem Solving

(Optional Preparatory Module)

PG-DAC February 2025

Duration: 18 hours online sessions + problem-solving as self-study

Objective: This preparatory module is conducted online before the actual PG-DAC course commencement for students to learn to think logically and how to solve problems. A number of problems will be given to the students to solve them logically.

Prerequisites: Knowledge of computer fundamentals.

Evaluation: No separate evaluations. Daily assignment problems are to be solved and submitted.

Note: Each day comprises 3 hours of online lecture sessions followed by solving various problems using the topics learned by the students.

Day 1: Building Logic and Solving Problems
Lecture:
Logical thinking
Problem-solving process
Assignments:
Practice logic building on given problems

Day 2: Decision making
Lecture:
If-else, nested if-else, switch case
Assignments:
Decision-making problems using if-else, nested if-else, switch case

Day 3: Control Statements
Lecture:
Loops
Assignments:
Conditional problems using loops

Day 4: Modular Programming
Lecture:
Functions
Assignments:
Problems using functions

Day 5: Arrays
Lecture:
Arrays
Assignments:
Problems using arrays

Day 6: Strings
Lecture:
Strings
Assignments:
Problems using strings