

Teaching Guidelines for Logic Building & Problem Solving

(Optional Preparatory Module)

PG-DAC August 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