



Daffodil
International
University

Class Test

Student ID: 253-15-865

Program: B. Sc. in CSE

Semester: Fall

Year: 2026

Course Code: CSE212

Course Title: Discrete Mathematics

Section:

Date: 6/10/2026

Class Test No: 01

Signature of the Course Teacher:

Q1. Answer the following questions in one line.

[3]

- a) Which Program Outcome is titled "Modern Tool Usage"?
- b) Which domain of Bloom's Taxonomy relates to attitudes, values and ethics?
- c) Which knowledge profile covers Engineering Design Knowledge?

Q2. State the converse, contrapositive, and inverse of the following conditional statement in English. [3]

The program compiles successfully whenever the syntax is correct and all the required libraries are imported.

Q3. Verify the following logical equivalence using the truth table.

[5]

$$(p \rightarrow q) \rightarrow r \equiv (\neg p \rightarrow r) \wedge (q \rightarrow r)$$

Q4. Suppose 30 students study Mathematics (M), 25 study Physics (P), 20 study Chemistry (C), 10 study both Mathematics and Physics, 8 study both Mathematics and Chemistry, 6 study both Physics and Chemistry, and 3 study all three subjects. Find the number of students studying exactly two subjects.