



Daffodil International University
Faculty of Science & Information Technology
Department of Information Technology & Management
Mid-Term Examination, Spring 2026

Course Code: ITM121; Course Title: Structured Programming
Sections & Teachers: A, MA

Time: 1:30 Hrs

Marks: 25

Answer ALL Questions

[The figures in the right margin indicate the full marks and corresponding course outcomes. All portions of each question must be answered sequentially.]

1.	a)	Define variables and constants in your own words. Write down the syntax to declare and initialize a variable in C.	[Marks-3]	CO-1 Level-2
	b)	Explain the rules for naming variables in C.	[Marks-3]	
	c)	Explain the 4 main parts of a loop. Differentiate between entry-controlled and exit-controlled loops.	[Marks-3]	
	d)	Differentiate between int, float.	[Marks-1]	
2.	a)	The ITM department system needs to check student usernames. Implement a C program using switch to determine whether an input character is a vowel or a consonant.	[Marks-4]	CO-2 Level-3
	b)	The ITM department system needs to validate username characters. Implement a C program to check whether an input character is a capital letter, small letter, digit, or special symbol and display the result.	[Marks-4]	
	c)	<pre> 1 22 333 4444 55555 </pre> Implement a C program to print the above pattern.	[Marks-4]	
	d)	The ITM department records student attendance for a lab session. The system scans student IDs one by one. If a student ID 0 is entered, it indicates that all remaining students are absent, and the scanning should stop immediately. Implement a C program that: 1. Continuously takes student IDs as input. 2. Prints each ID as present. 3. Stops scanning when the ID 0 is entered using a break statement.	[Marks-3]	