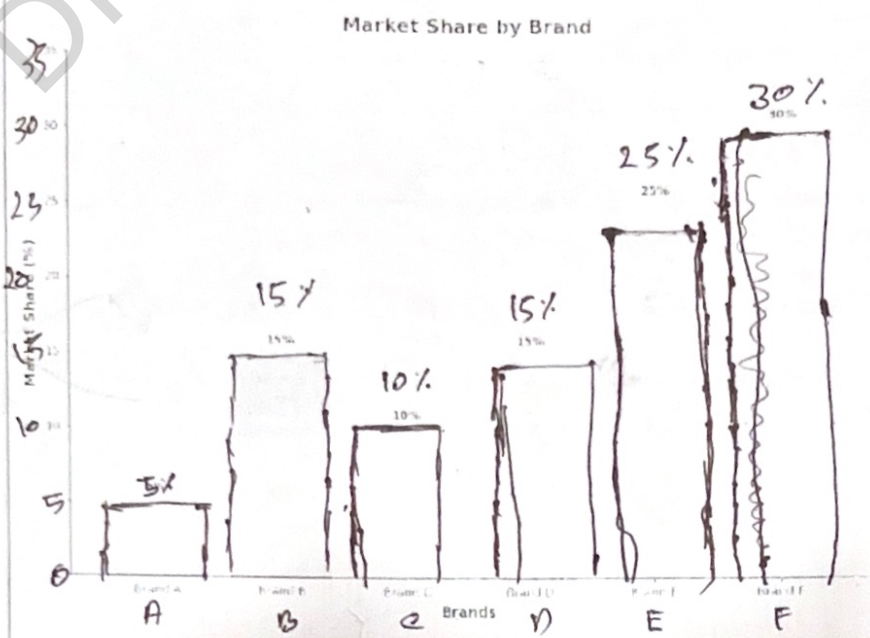
Daffodil International University
Department of Business Administration (BBA)
Faculty of Business & Entrepreneurship
Final Examination, Summer 2025
Course Code: 0613-114; Course Title: Programming for Business Analytics
Sections & Teachers: 68(A-D) & MFH, TR

Time: 2:00 Hrs **Marks: 40**

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)*	**Explain** how a for loop and functions work in Python with examples.	[Marks-5]	CLO-1 *Level-2*
2.	*a)*	**Construct** a Python program that uses a loop that calculates the sum of all even numbers up to a number n entered by the user.	[Marks-5]	CLO-2 *Level-3*
	b)	Construct a Python program using Nested Loop that takes an integer n as input and prints the following pattern. 1 22 333 4444 55555	[Marks-5]	
	c)	**Design** a loan eligibility checker function that evaluates income and credit score, and classifies applicants as: The Function will return the following values. ☐ "Eligible" if income ≥ 30000 and credit score ≥ 650 ☐ "Conditionally Eligible" if income ≥ 30000 but credit score < 650 ☐ "Not Eligible" otherwise.	[Marks-5]	
	d)	**Construct** a Python function to convert temperatures between Celsius and Fahrenheit using the formulas F = (C × 9/5) + 32 and C = (F - 32) × 5/9. Demonstrate the output for sample inputs.	[Marks-5]	
3.	*a)*	You are given a dataset **Sales_Channel_Data.csv** with the columns *Channel_Name* and *Revenue*. Using Python, list the steps to: • Load the dataset • Count revenue by channel • Visualize the results using a bar chart	[Marks-6]	CLO-3 *Level- 4*

	b)	A bar chart titled "*Market Share by Brand*" shows the percentage of sales for each brand. **Analyze** the chart and explain how this can inform competitive strategy.  	[Marks-4]	
	c)	**Analyze** and illustrate how to declare the following in Python: 1. A list of top-selling products 2. A tuple of store locations 3. A dictionary mapping products to prices 4. A set of unique customer IDs Explain one business use case for each	[Marks-5]	