



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

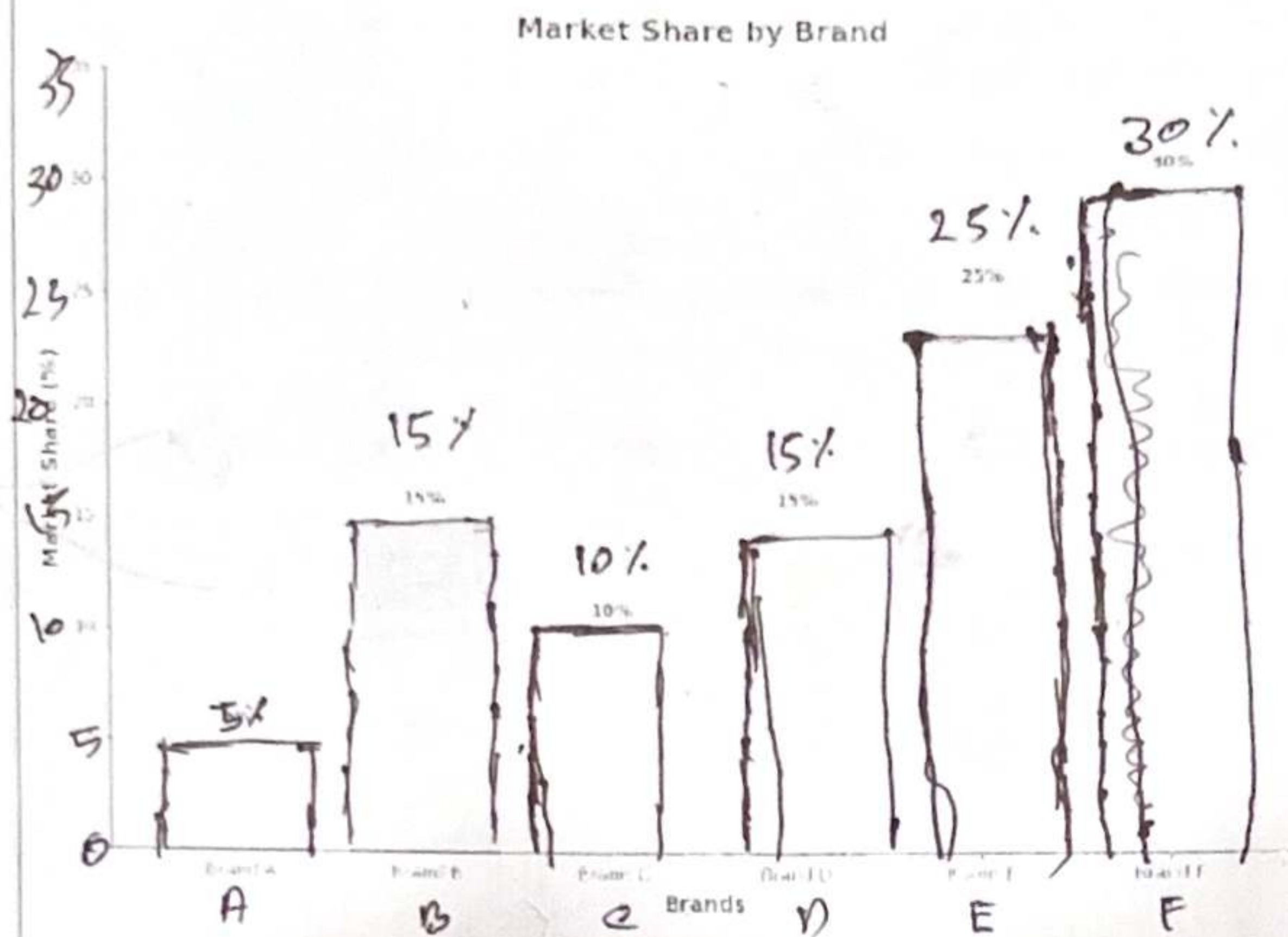
Answer ALL Questions

[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
	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]	
	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]	
2.	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]	CLO-2 Level-3
	d)	Construct a Python function to convert temperatures between Celsius and Fahrenheit using the formulas $F = (C \times 9/5) + 32$ and $C = (F - 32) \times 5/9$. Demonstrate the output for sample inputs.	[Marks-5]	
3.	a)	You are given a dataset <u>Sales_Channel_Data.csv</u> with the columns <u>Channel_Name</u> and <u>Revenue</u> . 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:

[Marks-5]

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