



Daffodil International University
Faculty of Science & Information Technology
Department of Software Engineering
Midterm Examination, Summer 2026

Course Code: SE 121; Course Title: Structured Programming
Sections & Teachers: A, B, C (MIR), D, E (MR), F, G, H (MNA), I (KRY)
Time: 1 Hour 30 Mins **Marks: 25**

RIA



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 treasure hunter discovers an old notebook containing the following steps: 1. Start 2. Input the number of gold coins. 3. If coins are greater than 100, print "Rich". 4. Otherwise, print "Explorer". 5. Stop. Answer the following: ✓ Articulate whether the above sequence is an Algorithm or a Flowchart. Justify your answer with appropriate reasons. [2] ✓ Compare flowcharts and programming code, and describe why flowcharts are generally easier to understand. [2] ✓ Infer the flowchart symbol that should be used for the decision-making step in this problem. [1]	[Marks-5]	CLO-1 Level-2
2. In a role-playing game, a character's overall power is determined by three attributes: Attack, Defense, and Speed. The game calculates the character's power using the following formula: $\text{Power} = (\text{Attack} \times 2) + (\text{Defense} \times 1.5) + (\text{Speed} \times 1.2)$ Based on the calculated power value, the character is assigned one of the following ranks: • Power ≥ 400 → Legendary • Power ≥ 300 → Epic • Power ≥ 200 → Rare • Otherwise → Common		CLO-2 Level-3
✓ Construct a flowchart that illustrates the process of calculating the character's power and determining the corresponding rank.	[Marks-5]	