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Daffodil International University

**Faculty of Science & Information Technology**

**Department of Information Technology & Management**

**Final-Term Examination, Fall 2025**

**Course Code: ITM 111; Course Title: Computer Fundamentals**

**Sections & Teachers: A, FR**

**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.**

```
#include <stdio.h>

// Function to calculate average of three integers
int findAverage(int a, int b, int c)
{
    int avg = (a + b + c) / 3;
    return avg;
}

int main()
{
    int num1, num2, num3;

    // Input three integers
    printf("Enter three integers: ");
    scanf("%d %d %d", &num1, &num2, &num3);

    // Call the function and display the result
    int result = findAverage(num1, num2, num3);
    printf("Average = %d\n", result);

    return 0;
}
```

**CO-2** *Level-2*

a) **Visualize** a flowchart for the given C program. [Marks-5]

b) **Describe** the basic structure of the C programming language. [Marks-5]

**2.** a) **Prepare** a comparison table for following networking devices Router, repeater and gateway [Marks-5] **CO-3** *Level-3*

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|---|---|---|---|---|
| | b) | Employee_Table<br><br>| EmpNo | Name | Age | Department | Salary |<br>|---|---|---|---|---|<br>| 001 | Alex S | 26 | Store | 5000.00 |<br>| 002 | Golith K | 32 | Marketing | 5600.00 |<br>| 003 | Rabin R | 31 | Marketing | 5600.00 |<br>| 004 | Jons | 26 | Security | 5100.00 |<br><br>**Demonstrate** the components of the database with the help of a given relation. | [Marks-5] | |
| 3. | | A student named Mira wants to send her exam registration details to her university through an online form. These details include her name, ID number, and phone number, which are sensitive. When Mira submits the form,her information is automatically encrypted by the website before it travels through the internet.When the encrypted data reaches the university's secure server, it is decrypted using a valid key so the staff can view the original information. | | CO-3<br>*Level-3* |
| | a) | **Illustrate** the overall process of how encryption and decryption protect sensitive information during online communication. Provide a proper explanation of each step involved. | [Marks-5] | |
| | b) | **Prepare** a comprehensive and well-structured report on the key principles of network security. | [Marks-5] | |
| 4. | a) | **Compare** Artificial Intelligence (AI) and Machine Learning (ML) with suitable examples. | [Marks-5] | CO-4<br>*Level-4* |
| | b) | **Document** the sequential steps involved in the processing of a user query by a search engine | [Marks-5] | |

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