



# Daffodil International University

Faculty of Science & Information Technology

Department of Computer Science and Engineering

Mid Semester Examination, Fall-2024

Course Code: CSE112 Course Title: Computer Fundamentals

Level: 1 Term: 1 Batch: 67

Exam Duration: 1.5 Hours

Marks: 25

Answer ALL the Questions

[The figures in the right margin indicate the full marks and corresponding course outcomes.]

1.		<p><b>Describe</b> the role and operation of the following components in a basic computer system:</p> <p>i. Control Unit ii. Arithmetic Logic Unit (ALU) iii. Memory Unit</p> <p>Use a block diagram of basic computer organization to illustrate your explanation on how these components work together to execute a simple instruction.</p>	[5]	CO1
2.	a)	What are the primary properties for considering anything as a system? Provide proper example.	[2.5]	
	b)	<b>Demonstrate</b> the step by step process of data processing activity.	[2.5]	
3.	a)	<b>Compare</b> the impact and non-impact printers.	[2]	CO2
	b)	<b>Compare</b> the Fixed word length and Variable word length memory.	[3]	
4.	a)	<p><b>Perform</b> the following conversions:</p> <p>i. <math>(48752)_8 = (?)_{16}</math> ii. <math>(4DF9C)_{16} = (?)_{10}</math> iii. <math>(132)_4 = (?)_6</math></p>	[6]	
	b)	<p><b>Perform</b> the following binary operations and show all steps:</p> <p>i. <math>10110101 + 01110101 = ?</math> ii. <math>10000010 - 01010111 = ?</math></p>	[4]	