Brain International School

Vikas Puri, New Delhi

ASSIGNMENT NO. 3

SUBJECT: COMPUTER SCIENCE CLASS-XI JULY,2025

Chapter 4: Introduction to Problem Solving

1. Define problem-solving in the context of computer science.
2. What are the steps involved in problem-solving? Explain each step briefly.
3. Explain the difference between an algorithm and a program.
4. Write an algorithm to find the largest of three numbers.
5. Explain the concept of flowchart. Draw a flowchart to find whether a number is prime or not.
6. What is the importance of pseudocode in problem-solving? Write the pseudocode to calculate the factorial of a number.
7. Describe the types of errors that can occur while solving problems and how to avoid them.

Chapter 5: Getting Started with Python

1. What is Python? Why is it considered a high-level programming language?
2. Explain how to install Python and run a simple program.
3. Write a Python program to print "Hello, World!" on the screen.
4. What are the basic data types in Python? Provide an example for each.
5. How do you create and assign values to variables in Python? Illustrate with an example.
6. Explain the difference between print() and input() functions in Python.
7. Write a Python program that takes input from the user and prints it back.

Chapter 6: Python Fundamentals

1. Define the following tokens in Python: keywords, identifiers, literals, operators, and separators. Give an example of each.
2. Explain the basic structure of a Python program with a simple example.
3. What are variables in Python? How are they assigned values? Illustrate with an example.
4. Write a Python program that takes user input and displays it with a message. Use the input() function.
5. What is dynamic typing in Python? How does it differ from static typing? Provide examples to illustrate.
6. Explain the concept of multiple assignment in Python. Write a Python program to assign values to three variables in one statement.
7. Write a Python program that demonstrates the use of both input() and print() functions. Assign values to variables and display the result.

Chapter 7: Data Handling

1. What are data types in Python? List the common data types with examples.
2. Explain the difference between mutable and immutable types in Python. Provide examples for each.
3. What are operators in Python? Classify them into different types and explain each with examples.
4. Define an expression in Python. Write a program that evaluates an expression using arithmetic operators.
5. What is debugging? Why is it an essential part of programming? Describe different types of errors that can occur during debugging.
6. Write a Python program that demonstrates the use of a logical operator (and, or, not).
7. What is the significance of using parentheses in complex expressions? Write an example program to show the order of operations in an expression.