



Term Evaluation (Even)-Semester Examination March 2025

Roll no...2492525.....

Name of the Course and semester: BCA AI/DS 2

Name of the Paper: Fundamentals of Python Programming

Paper Code: TBD202

Time: 1.5 hour

Maximum Marks: 50

Note:

- (i) Answer all the questions by choosing any one of the sub questions
- (ii) Each question carries 10 marks.
- (iii) Please specify COs against each question.

Q1.

(10 Marks) CO1, CO2

- a. What is python? Give its history and features? What is the reason of increasing popularity of python amongst developers?

OR

- b. Write short notes on any three

- (i) Mutable and Immutable Types
- (ii) comments in python
- (iii) len()
- (iv) string slicing

Q2.

(10 Marks) CO1

- a. What are the various numerical data types in Python? Write a Python program that takes two numbers as user input, converts them to float, performs addition and division, and prints the formatted result..

OR

- b. What is the purpose of importing modules in Python? Give examples of built-in modules and their functions.

Q3.

(10 Marks) CO1

- a. Write a Python program that asks the user for a number and determines whether it is even or odd using an if-else statement.

OR

- b. Differentiate between a for loop and a while loop with suitable examples. Write a Python program to print the table of the number entered from the user.

Q4.

(10 Marks) CO1, CO2

- a. Explain the differences between binary, octal, decimal, and hexadecimal number systems. How does Python allow interconversion between these number systems?

OR

- b. How can Python be used in data encryption and security?

Q5.

(10 Marks) CO2

- a. What are mutable and immutable data types in Python? Classify strings, lists, and dictionaries accordingly.

OR

- b. How do you read and write text files in Python? Explain the different modes with examples.