TEST 2

Assessment

Duration: 1.5 Hours
Total Marks: 50

SECTION A – MCQs (10 Marks)

10 Questions × 1 Mark

1. Which keyword is used to define a function in Python?
   a) function   b) def   c) make   d) create

2. A lambda function is:
   a) A named function   b) An anonymous function   c) A loop   d) A file

3. What is the file read mode in Python?
   a) w   b) r   c) a   d) x

4. What is the correct way to import Pandas?
   a) import pandas   b) import pandas as pd
   c) pandas import   d) pd pandas

5. A DataFrame is:
   a) A single value   b) A single column
   c) Data arranged in rows and columns   d) A function

6. What does head() do?
   a) Shows last rows   b) Shows first rows
   c) Deletes data   d) Sorts data

7. What does dropna() do?
   a) Fills missing values   b) Deletes missing values
   c) Sorts data   d) Closes file

8. A local variable can be accessed:
   a) Throughout the program
   b) Only inside the function
   c) Inside a file
   d) Inside a loop

9. What does map() do?
   a) Applies a function to each element
   b) Deletes data
   c) Opens a file
   d) Produces an error

10. groupby() is used to:
    a) Delete data
    b) Summarize data by categories
    c) Create variables
    d) Create loops

SECTION B – THEORY (15 Marks)

1. (5 Marks) What is a function? Explain with a simple example.

2. (5 Marks) Explain the difference between local and global variables.

3. (5 Marks) Why do we use Pandas? Write three points.

SECTION C – PRACTICAL (25 Marks)

PART 1 – Basic Python (10 Marks)

1. (5 Marks) Write a function that:

   - Prints "Hello Python"
   - Calls the function

2. (5 Marks) Write a lambda function that:

   - Calculates the square of a number
   - Example input: 5
   - Expected output: 25

PART 2 – File Handling (5 Marks)

Write a program that:

- Creates a file named "myfile.txt"

- Writes "Test File" inside it

- Closes the file

PART 3 – Pandas Basic (10 Marks)

Load a CSV file and:

- Display head()

- Display shape

- Check missing values

- Calculate the mean of one column

- Save the cleaned file

Best of Luck!