



Course Code : 2101CS405

Date : 16-11-2024

Course Name : Python Programming

Duration : 150 Minutes

Total Marks : 70

Instructions:

1. Attempt all the questions.
2. Figures to the right indicates maximum marks.
3. Make suitable assumptions wherever necessary.

Q.1 (A) State the differences between List and Tuple. **4**

(B) Explain string slicing with an example. **3**

OR

Explain introspection in python.

(C) Explain keys(), values() and items() method of Dictionary with example. **7**

OR

Explain list methods with example.

Q.2 (A) Write a program to print a given number in reverse order. **4**

(B) Explain identity operator with an example. **3**

OR

Explain membership operator with an example.

(C) Explain required, keyword and variable-length argument type with example. **7**

OR

Explain lambda function with an example.

Q.3 (A) Write a program that reads a file and counts the number of word occurrences. **4**

(B) Explain tell() function with an example. **3**

OR

Explain error handling using with keyword.

(C) Explain any seven Built-in Exceptions. **7**

OR

Explain user defined exception with an example.

- Q.4 (A)** Explain different ways to import python module. **4**
- (B)** Explain strftime() and strptime() with example. **3**

OR

Explain datetime and timedelta class with example.

- (C)** Write a python program to display a line chart of two lines. **7**
- 1) Plot a line chart with two lines representing random data.
 - 2) Customize the appearance of each line by modifying the color, line width, marker, and line style.
 - 3) Add labels to the x-axis and y-axis, and include a title for the chart.
 - 4) Add a legend to differentiate between the two lines.
 - 5) Add an annotation to highlight a specific data point on one of the lines.

OR

Write a python program to display a pie chart with labels, percentages, colors and explode values. Consider random data.

- Q.5 (A)** Explain public, private and protected access modifiers with example. **4**
- (B)** Differentiate Class Attributes and Instance Attributes. **3**

OR

Explain static method with an example.

- (C)** Explain Polymorphism with an example. **7**

OR

Explain abstract method with an example.
