

## PP QP Sessional Answers

**1.a) What are the different loop control statements available in Python? Explain with suitable examples.**

**Ans.1.a)**

**1.b) Differentiate between Method Overloading and Method Overriding.**

**Ans.1.b)**

**2.a) Write Python code to determine whether the given string is a Palindrome or not.**

**Ans.2.a)**

**2.b) Explain the difference between function and module.**

**Ans.2.b)**

**3.a) Write short note on (any 3)**

**i. Inheritance ii. Encapsulation**

**iii. Polymorphism iv. Abstraction**

**Ans.3.a)**

**3.b) Write a Python program to create a person class. Include attributes like name, country and date of birth. Implement a method to determine the person's age.**

**Ans.3.b)**

**4.a) What is the lambda function? Write the characteristics of a lambda function. Explain the same with an example.**

**Ans.4.a)**

**4.b) What do you mean by a constructor? List and describe various methods to calculate its area and perimeter.**

**Ans.4.b)**

**5.a) Explain the following functions of NumPy library with the help of examples.**

**i. max() ii. min() iii. sum( ) iv. mean( ) V. std()**

**Ans.5.a)**

**5.b) Create the following NumPy arrays:**

**i. 1-D array called zeros having 10 elements and all the elements are set to zero.**

**ii. 1-D array called vowels having the elements 'a', 'e', 'i', 'o' and 'u'.**

**iii. 2-D array called ones having 2 rows and 5 columns and all the elements are set to 1 and dtype as int.**

**Ans.5.b)**

**6.a) Write difference between Pandas series and NumPy arrays**

**Ans.6.a)**

**6.b) Explain any 5 attributes of data frames in pandas.**

**Ans.6.b)**

**6.b) Create the following Data Frame Sales containing year wise sales figures for five: sales persons in INR. Use the years as column labels, and sales person names as row labels.**

	2014	2015	2016	2017
Ankit	100.5	1200	2000	4000
Nazneen	150.6	1800	5000	5500
Sumit	200.9	2200	4000	6500
Akshada	3000	5000	7000	8000
Shruti	5000	6000	8000	10000

**Ans.6.b)**

**7.a) Write the installation process of flask setup and discuss the advantages of Flask Framework**

**Ans.7.a)**

**7.b) Explain the following commands.**

i. `app.run(host, port, debug, options)`

ii. `@app.route("/home")`

**Ans.7.b)**

**8.a) Explain the following Flask HTTP methods:**

i. GET ii. HEAD iii. POST iv. PUT v. DELETE

**Ans.8.a)**

**8.b) Design a code to print the table of 10 by Embedding Python statements in HTML.**

**Ans.8.b)**

**9.a) Explain any one regression algorithm.**

i. Simple Linear Regression      ii. Multiple Linear Regression

iii. Support Vector Regression      iv. Random Forest Regression

**Ans.9.a)**

**9.b) Differentiate between Supervised and Unsupervised learning.**

**Ans.9.b)**

**10.a) Explain Naive Bayes Algorithm along with the example**

**Ans.10.a)**

**10.b) Differentiate between regression and classification algorithms.**

**Ans.10.b)**