

Roll No.

Total No. of Pages : 02

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**B.Sc. (AI&ML) (Sem-4)**  
**ADVANCE PYTHON PROGRAMMING**

Subject Code : UGCA 1983

M.Code : 91712

Date of Examination : 24-05-2023

Time : 3 Hrs.

Max. Marks : 60

**INSTRUCTIONS TO CANDIDATES :**

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains SIX questions carrying TEN marks each and students have to attempt any FOUR questions.

**SECTION-A**

**1. What will the output of following code segment be :**

- a) Write a Python program to test whether a given number is even or not.
- b) How reindexing is performed in pandas data frame? Explain.
- c) What is text data?
- d) Write a program to print current date and time in Python.
- e) How Ndarray objects are created in Python? Explain.
- f) What do you mean by descriptive statistics? Explain.
- g) What is the advantage of using matplotlib library?
- h) What do you mean by array attribute? Explain.
- i) How to import Seaborn library? Explain.
- j) What is Scipy?

## SECTION-B

2. Create the following table for hospital management system and insert the records as mentioned. Fetch all the rows from the table and display the information.

Doctor_ID	Doctor Name	Salary	Years of Experience
123	Akriti	200000	10
124	Simran	150000	5
125	Ananya	300000	15

3. Write a program for the following

- a) How slicing is performed in arrays? Illustrate along with an example.
- b) Create a string. Now swap middle characters in the new string, if the length of the string is even. If the length of the string is odd, then delete middle character.

Ex: Str1= "Hello" New\_Str= "Helo",

Str1= "Change" New\_Str= "Change"

4. What is Groupby Function In Pandas? Illustrate with the help of a program.
5. How can pandas detect missing data? Explain along with an example.
6. Explain any five important features of Scikit-learn library.
7. Write a program to apply statistical functions on Numpy.

**NOTE : Disclosure of Identity by writing Mobile No. or Marking of passing request on any paper of Answer Sheet will lead to UMC against the Student.**