**III Semester B.C.A. Degree Examination, March/April 2023
(NEP) (Freshers) (2022-23 and Onwards)
COMPUTER SCIENCE
Python Programming**

Time : 2½ Hours   Max. Marks : 60

Instruction : *Answer all the Parts.*

PART – A

Answer **any 4** questions. **Each** question carries **2** marks :   (4×2=8)

1. Why python is an interpreted language ?

2. Explain membership operators.

3. What is a tuple ? Give an example.

4. Define encapsulation and inheritance.

5. What is constructor method in python ?

6. What is a file ? Mention the type of files.

PART – B

Answer **any 4** questions. **Each** question carries **5** marks :   (4×5=20)

7. Explain the features of python.

8. What is string slicing in python ? Explain with examples.

9. What is the difference between lists and tuples ? Explain with examples.

10. Explain how you create classes and objects in python.

11. Explain different file modes in python.

12. What is data visualization ? List the libraries that are used for data visualization in python.

P.T.O.

PART – C

Answer **any 4** questions. **Each** question carries **8** marks : (4×8=32)

13. a) What are tokens ? Explain various tokens in python with examples. 4

    b) Explain core data types in python. 4

14. What are functions ? How to define and call a function in python ? Explain with example. 8

15. a) Explain if... elif... else control flow statement with example. 4

    b) Write a program to perform indexing and slicing in lists. 4

16. How do you perform reading and writing files in python ? Explain with an example program. 8

17. Define pickling in python. Explain serialization and deserialization. 8

18. a) Explain matplotlib. 4

    b) Write python code to create a simple plot using matplotlib module. 4

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