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Reg. No. | | | | | | | | | |

III Semester B.C.A. Degree Examination, December/January - 2025/26

COMPUTER SCIENCE

Python Programming

(SEP Scheme Freshers)

Time : 3 Hours **Maximum Marks : 80**

Instructions to Candidates:

Answer All the Sections.

SECTION - A

I. Answer any TEN questions. Each question carries 2 marks. **(10×2=20)**

1. Why Python is called dynamically typed language?
2. Write about print( ) and input ( ) functions in python
3. Define a string? Write the different ways to represent the strings in python.
4. Define a list. Give an example.
5. Explain membership operator used "in" in Set.
6. What is pickling and unpickling in python?
7. Define a constructor. Write the General syntax for constructor method in python.
8. What is Numpy? List any two features of Numpy.
9. Define DataFrame in Pandas? Give an example.
10. What is API and Web API?
11. List any four python libraries used for data analysis and visualization.
12. What is JSON?

[P.T.O.

SECTION - B

II. Answer any FIVE questions. Each question carries 6 marks. **(5×6=30)**

13. Write about the "Type ( )" function in python. Explain with an example. **(6)**

14. Explain different string operations in Python. **(6)**

15. Define a Tuple. Write any four Built-in functions used on Tuples. **(6)**

16. Write different ways of traversing techniques in a dictionary? **(6)**

17. Write in detail different types of constructors used in python. **(6)**

18. Write a program to create Numpy arrays, perform elements - wise operations and reshape array. **(6)**

19. What is Matplotlib? Explain any four functions of Matplotlib. **(6)**

20. What is Data understanding? Explain about head ( ), tail ( ), info ( ) and describe ( ) functions. **(6)**

SECTION - C

III. Answer any THREE questions. Each question carries 10 marks. **(3×10=30)**

21. Write about loop control statements in python with general syntax and example. **(10)**

22. Write about Indexing and slicing in a list. **(10)**

23. Explain the Inheritance concept in python with types. **(10)**

24. a) Define data visualization. Write and explain different types of charts used in data visualization. **(5)**

    b) Write a program to display line graph in Python. **(5)**