

2023

## PROGRAMMING IN PYTHON

Paper : BCA-HE-5046

Full Marks : 60

Time : Three hours

**The figures in the margin indicate full marks for the questions.**

1. Answer the following : **(any five)**  $2 \times 5 = 10$ 
  - (a) What are the core data types in Python programming?
  - (b) What are command line arguments?
  - (c) Define class with proper example.
  - (d) What is Recursion? Give example.
  - (e) What do you mean by scope of variables in Python?
  - (f) What are built-in function in Python? Give example.

Contd.

2. (a) What is string slicing in Python? Explain with proper example. 4  
(b) Define Decision table. 2  
(c) What is a list variable in Python? Give example. 4
3. (a) What are the important characteristics of Python programming? What are identifiers and keywords? 3+2=5  
(b) Write a program to implement linear search on list. 5
4. (a) Explain Relational and Logical operators of Python programming with proper example. 6  
(b) What is the structure of a Python program? Discuss. 4
5. (a) What are the major programming methodologies? Explain. 5  
(b) Write a program to generate Fibonacci series. 5
6. Answer **any two** : 5×2=10  
(a) Write a program to sort a list using insertion sort.

- (b) Write a program to create Stack class and implement its all methods.  
(c) Write a program to check whether a number is even and odd.  
(d) Write a program to reverse number.
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