

Total number of printed pages-3

44 (5) BCA-HE-5046

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.

$n = 10 \quad x = 10 \quad (n = 16)$
 $(n < 10)$

$n = 12 \Rightarrow 20$
 $rev = n \% 10$
 $rev = rev * 10 + n \% 10$
 $n = n / 10$
 $if (n > 0)$