

Roll No.

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December 2023

**B.Tech. (EL) – V SEMESTER
Programming in Python (ELOE–122)**

Time : 3 Hours]

[Maximum Marks : 75

Instructions :

1. *It is compulsory to answer all the questions (1.5 marks each) of Part-A in short.*
2. *Answer any **four** questions from Part-B in detail.*
3. *Different sub-parts of a question are to be attempted adjacent to each other.*

PART–A

1. (a) Explain features of Python. (1.5)
- (b) What are negative indexes in Python? (1.5)
- (c) What are **break and continue** used for in a loop? (1.5)
- (d) Differentiate between Tuples and Lists. (1.5)
- (e) What is dictionary used for? (1.5)
- (f) Syntax to print first 10 odd numbers in Python. (1.5)

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- (g) What is the need of seek() function in Files in Python? (1.5)
- (h) What is slicing? Explain using Syntax. (1.5)
- (i) What are Python comments? (1.5)
- (j) What are lamda functions? (1.5)

PART-B

2. (a) Explain, using syntax, various data types supported in Python. (10)
- (b) Write a program to read a four digit number and print the product of digits. (5)
3. (a) What is a package? How is it different from a module? (5)
- (b) What is a file? Explain modes of operation in a text file. (10)
4. What is a constructor? How does it differ from an ordinary function? Write a program to demonstrate the use of a constructor and a docstring in a class. (15)
5. (a) Write a program to find cube of a number using def function. (5)
- (b) What is an exception ? Explain 3 keywords associated with Exception handling mechanism. (10)

6. (a) Explain various operators in Python. (10)
- (b) What is numpy used for? (5)
7. (a) What is a String? Explain using syntax any 4 methods associated with String class. (10)
- (b) What is the use of Dataframes? (5)