

STELLA MARIS COLLEGE (AUTONOMOUS) CHENNAI 600 086
(For candidates admitted during the academic year 2023 – 2024)

M. Sc. DEGREE EXAMINATION, NOVEMBER 2023
INFORMATION TECHNOLOGY
FIRST SEMESTER

COURSE : MAJOR CORE
PAPER : PROGRAMMING WITH PYTHON
SUBJECT CODE : 23CS/PC/PP14
TIME : 1 ½ HOURS

MAX. MARKS: 50

Q. No.	SECTION A Answer all the questions (6 X 5 = 30)	CO	KL
1.	a) Discuss the different types of errors in Python. (OR) b) Explain the various types of assignment operators in Python.	CO1	K1
2.	a) Describe the different formatting function for numbers in Python with examples. (OR) b) Explain about two-way if-else statements with examples.	CO2	K2
3.	a) Identify the various kinds of arguments in the function. Explain it with an example. (OR) b) How the class abstraction and Encapsulation is defined inside the class with an example?	CO3	K3
4.	a) Illustrate the various operations defined in lists. (OR) b) Demonstrate how the Top-down design is implemented in a program.	CO3	K3
5.	a) Analyze the use of string methods in Python with examples. Describe why strings are immutable. (OR) b) Write a Python program to perform Insertion sort with an example.	CO4	K4
6.	a) Discuss the various operations in a file along with its syntax. (OR) b) Compare the usage of Dictionaries and sets. Give an example for their usage.	CO4	K4
Q. No.	SECTION B Answer all the questions (2 x 10=20)	CO	KL
7.	a) Summarize the various types of looping constructs. Apply the looping construct to find the sum of digits of a given number. (OR) b) What are user-defined functions? How can we pass parameters in user defined functions? Explain with suitable example.	CO3	K3
8.	a) Justify that binary search is more efficient than linear search. Explain (OR) b) Compare the usage of lists, tuples data type? Give an example for each data type	CO4	K4
