STELLA MARIS COLLEGE (AUTONOMOUS) CHENNAI 600 086
(For candidates admitted during the academic year 2019 – 20 & thereafter)

SUBJECT CODE: 19CS/PC/PP14

M. Sc. DEGREE EXAMINATION, NOVEMBER 2022
INFORMATION TECHNOLOGY
FIRST SEMESTER

COURSE : MAJOR CORE
PAPER : PROGRAMMING WITH PYTHON
TIME : 1 ½ HOURS **MAX. MARKS: 50**

SECTION-A

Answer ALL the questions: **(5x2=10)**

1. Give the rules of Precedence.
2. s= "Bonjour, Deepa and Jessica". Write code to print “Deepa” and index of J.
3. State the difference between immutable and mutable objects.
4. Give the output of the following:

```
list1 = [2, 3, 1, 'a', 'B']
list1.sort()
print list1
list1 = [2, 3, 1, 'a', 'B']
sorted(list1)
print(list1)
list3 = sorted(list1, reverse=True)
print list1, list3
```

5. Differentiate Tuple and Set.

SECTION-B

Answer any FOUR of the following questions: **(4x5=20)**

6. Define the following with an example: Variable, Statement and Expression. Also give the rules for defining a variable name.
7. Write a password guessing program to keep track of how many times the user has entered the password wrong. If it is more than 3 times, print *You have been denied access.* and terminate the program. If the password is correct, print *You have successfully logged in.* and terminate the program.
8. Write code to declare student class with hidden data. Construct objects and access the members.

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9. Explain how a 2D List is created, elements are added and removed.
10. Define Python Dictionaries. Give the syntax to iterate a dictionary via keys, values and in pair.
11. Give the functions which help in drawing various shapes in different colors.

SECTION-C

Answer any TWO of the following questions: (2x10=20)

12. With examples explain the two ways of implementing a counter controlled loop.
13. Define Function. How is it defined and called in python? Write a Python code to demonstrate returning multiple arguments.
14. Describe with an example how an exception is raised, detected and handled in Python.

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