**BOARD DIPLOMA EXAMINATION, (C-20)**

**DECEMBER—2022**

**DCME - FIFTH SEMESTER EXAMINATION**

PYTHON PROGRAMMING

*Time* : 3 hours ]                                                      [ *Total Marks* : 80

**PART—A**                                                            3×10=30

**Instructions :** (1) Answer **all** questions.

(2) Each question carries **three** marks.

(3) Answers should be brief and straight to the point and shall not exceed five simple sentences.

1.  List any three built-in functions of Python.

2.  What is the use of **pass** statement in Python.

3.  Write a Python program to read age of citizen and check whether citizen is eligible for voting or not.

4.  Write the syntax and purpose of lambda function in Python.

5.  Write any three differences between local variable and global variable in Python.

6.  Write any three advantages of tuple over list.

7.  What are Python sets? Write a python program to create a set and display it.

8.  Write the syntax for opening a file in Python and list the file opening modes.

9.  What is data abstraction in Python?

10.  List any three built-in exceptions of Python.

# PART—B

8×5=40

**Instructions :** (1) Answer **all** questions.

(2) Each question carries **eight** marks.

(3) Answers should be comprehensive and criterion for valuation is the content but not the length of the answer.

11. *(a)* Explain the applications of Python in various fields.

### (OR)

*(b)* Write the syntax for defining a function. Write a python program to find the Fibonacci series of 25 numbers using functions.

12. *(a)* Explain the syntax and purpose of **break** statement in Python. Explain with a sample program.

### (OR)

*(b)* Write the syntax for **while loop** in Python. Write a Python program to find the factorial of a given integer using while loop.

13. *(a)* Explain string slicing and string immutability with a sample program.

### (OR)

*(b)* Write a python program to access one modules variable and function in another module.

14. *(a)* Write a Python program in which a function that accepts arguments and returns a tuple formed with those arguments.

### (OR)

*(b)* Explain any four list methods with a sample python program.

15. *(a)* Explain method overloading with an example program.

### (OR)

*(b)* Write the syntax for try, except, else, finally clauses and explain with a sample program.

**Instructions :**   (1)  Answer the following question.

(2)  The question carries **ten** marks.

16.  Write a Python program to construct the following pattern, using nested loop.

For example, if the input is 2

print 1

     2 2

If the input is 9

print                 1

                    2 2

                    3 3 3

                    4 4 4 4

                    5 5 5 5 5

                    6 6 6 6 6 6

                    7 7 7 7 7 7 7

                    8 8 8 8 8 8 8 8

                    9 9 9 9 9 9 9 9 9

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