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BOARD DIPLOMA EXAMINATION, (C-20)

OCTOBER/NOVEMBER—2023

DCAI – FOURTH 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. Define an identifier.

2. List different data types used in Python.

3. Write a Python program to print all even numbers from 1 to 100 using for loop.

4. Define a set in Python.

5. How to add an item to the end of a list in Python?

6. List different types of arguments in Python.

7. What is PIP in Python?

8. List different modes of opening a file in Python.

9. Define data hiding.

10. Define a class.

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 about different applications of Python.

(OR)

(b) Write down the steps involved in developing and executing a Python program.

12. *(a)* Explain about if-elif-else statement in Python with an example.

(OR)

(b) Write a Python program to find whether a given number is a palindrome or not.

13. *(a)* Explain in detail about dictionaries in Python.

(OR)

(b) Explain about comprehensions in Python with suitable examples.

14. *(a)* What are two ways of importing a module? Which one is beneficial? Explain.

(OR)

(b) Write a Python program to find the Nth Fibonacci number using recursive function.

15. *(a)* Explain in detail about how to create a user defined exception in Python.

(OR)

(b) Explain about method overriding in Python with an example.

PART—C

10×1=10

Instructions : (1) Answer the following question.

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

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

16. Write a Python program to calculate the Least Common Multiplier (LCM) and the Greatest Common Divisor (GCD) of a given number.

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