

Roll No.

Subject:- Computer Programming Using Python

M.M. : 100

Note: Multiple choice questions. All questions are compulsory
(10x1=10)

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SECTION-B

Note: Objective type questions. All questions are compulsory.
(10x1=10)

- Q.11 What is the purpose of a python dictionary?
- Q.12 What does the term "PEP 8" refers to in Python programming?
- Q.13 What is the purpose of "range()" function in Python?
- Q.14 What is the purpose of "import" statement in Python?
- Q.15 How do you define function in Python?
- Q.16 What is a variable in Python?
- Q.17 Which functions are used to open and read a file in Python?
- Q.18 What does "Append()" method do in Python.
- Q.19 Explain the role of the "return" statement in a function.
- Q.20 What is virtual environment in Python?

SECTION-C

Note: Short answer type questions. Attempt any twelve questions out of fifteen questions.
(12x5=60)

- Q.21 Explain the concept of OOP in Python.
- Q.22 Write a Python function that takes a list of numbers as input and returns the sum of all even numbers in the list.
- Q.23 Describe the purpose and usage of list comprehensions in Python. Provide example.
- Q.24 Explain the concept of exception handling in Python.
- Q.25 What is the purpose of "lambda" function in Python? Provide an example.
- Q.26 Create a Python dictionary containing information about a book, including "title" and "author". Write code to add a new key-value pair.
- Q.27 Explain the difference between set and dictionary in Python? Provide example of each.

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- Q.28 Define a function in Python that takes two arguments 'a' and 'b' and returns the sum of their square.
- Q.29 What is nested list? How to access the items of a nested list. Demonstrate with example.
- Q.30 Write the difference between for loop and while loop. Write their syntax and scenario where each type of loop is more suitable.
- Q.31 Explain the term mutable and immutable in the context of Python objects. Provide examples of mutable and immutable data types in python.
- Q.32 Describe the use of "With" statement in python and how it is used to manage resources like files.
- Q.33 Describe the purpose of the "map", "filter" and "reduce" functions in Python.
- Q.34 Write the purpose of "if", "elif" and "else" statement in Python. Provide example.
- Q.35 What is the garbage collector? How Python garbage collector works?

SECTION-D

Note: Long answer type questions. Attempt any two questions out of three questions.
(2x10=20)

- Q.36 Define classes and objects in Python. Demonstrate the use of `__init__()` function for a class.
- Q.37 Explain the following built-in functions for file handling with their syntax.
`open()` `file()` `seek()` `tell()` `read()`
- Q.38 What is the use of "math" module in python? How to use math module in Python programming. Write any five methods from "math" module with their description.

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