

**SREENIVASA INSTITUTE OF TECHNOLOGY AND MANAGEMENT STUDIES**  
(AUTONOMOUS)  
Murukambattu, Chittoor

## **MCA DEPARTMENT**



### **QUESTION BANK**

**for**

**20MCA124 - Programming Using Python**

**Regulation – R20**

**Academic Year 2022 – 23**

***Prepared by***

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**QUESTION BANK**

SUBJECT NAME : Programming Using Python

SUBJECT CODE : 20MCA124

YEAR & SEM : I & II

Academic Year : 2022-24

**UNIT - 1 : INTRODUCTION**

The Python Programming Language, What is a program, debugging, syntax errors, runtime errors, semantic errors, Experimental debugging, formal & natural languages, The first program, Comments, Variables, Expressions and Statements, Program Flow-Conditionals, Iteration.

**PART -A**

Q.No.	Questions	Blooms Taxonomy Level
1	List Out the Python IDE's	Remembering
2	List out Python Features	Remembering
3	Distinguish between Variable and Constant	Analyzing
4	What is Program	Understanding
5	What is Debugging	Understanding
6	Differentiate between formal and Natural Language	Analyzing
7	Explain what is variable with an example	Understanding
8	Illustrate the difference between while and do while	Applying

**PART -B**

1	Explain Types of Errors	Understanding
2	Discuss the Features of Python	Knowledge
3	Describe Python Expressions and Statements	Understanding
4	Explain Various Python Program Flow Conditions	Analyzing
5	Briefly Explain various Python Control Statements	Applying
6	Briefly Explain various Python Iterative Statements	Understanding
7	Write a Python Program to illustrate Python For Loop	Understanding
8	Discuss different types of Python comment statements	Knowledge

**UNIT II - : FUNCTIONS & STRINGS**

Functions, Function calls, Flow of Execution, Functions that require arguments, Functions that return values, Variables & Parameters are local, Return Values, Program development, Debugging with print, Composition, Boolean Functions, Local Variables, String Handling, Strings.

**PART -A**

1.	What is Python Function	Understanding
2.	List out Python Functions with Arguments	Analyzing
3.	List out types of Python Variables	Remembering
4.	Define composition	Understanding
5.	List out Boolean functions	Remembering
6.	Explain the syntax of declaring python function	Understanding
7.	List of different ways of creating python strings	Understanding
8.	What are the benefits of Python Functions	Understanding

**PART -B**

1.	Explain Functions with and without return statement with an example	Understanding
2.	Discuss Positional and Keyword Arguments in detail	Understanding



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3.	Briefly explain what is function , how to declare functions and types of functions	Understanding
4.	Briefly Explain Boolean functions with examples	Understanding
5.	Differentiate Global and Local variable in detail	Analyzing
6.	Explain how to create and Access Packages in detail	Understanding
7.	Explain Function with Argument and without Argument with an Example	Understanding
8.	Write a Python program to find sum of 2 numbers using Functions	Applying
9.	Explain Python String Creation and String Handling in detail	Understanding

**UNIT III - RECURSION, LISTS, DICTIONARIES AND SETS**

Recursive Functions, Recursive Problem Solving, Iteration Vs Recursion, List Structures, Lists in Python, Iterating over Lists in Python, More on Python Lists, Dictionaries and Sets-Dictionary type in Python, Set data type.

PART –A

1.	Define Recursion	Understanding
2.	Differentiate Recursion and Iteration	Analyzing
3.	What is python List	Remembering
4.	What is python tuple	Understanding
5.	What is python Dictionary	Understanding
6.	What is python Set	Understanding
7.	List out Python Data Structure	Remembering
8.	Mention python built in Data structures	Remembering

PART –B

1.	Write about Recursive Problem Solving	Understanding
2.	Discuss Python List and operations with examples	Understanding
3.	Discuss Python Tuple and operations with examples	Understanding
4.	Discuss Python Set and operations with examples	Understanding
5.	Discuss Python Dictionary and operations with examples	Understanding
6.	Illustrate iterating over a list in python	Applying
7.	Differentiate Python List and Sets	Analyzing
8.	Differentiate Python sets and dictionary with example	Analyzing

**UNIT IV - RECURSION, LISTS, DICTIONARIES AND SETS**

What is Object Oriented Programming, Encapsulation, Inheritance, Polymorphism, Object-Oriented Design Using UML, and Computational Problem Solving – Vehicle Rental Agency Program

PART –A

1.	What is OOP'S	Understanding
2.	List out OOP's concepts	Remembering
3.	What is computational problem solving	Understanding
4.	What is Inheritance	Understanding
5.	List out UML diagrams	Remembering
6.	What is self keyword	Understanding
7.	List out inheritance types	Remembering
8.	What is method overloading	Understanding



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PART –B		
1.	Explain OOP'S concept in detail	Understanding
2.	Differentiate Procedure Oriented vs Object Oriented approach	Analyzing
3.	What is polymorphism and how it is implemented in python	Applying
4.	Explain single inheritance with an example	Applying
5.	Explain briefly about python inheritance	Understanding
6..	Discuss about Computational Problem Solving	Understanding
7.	Explain Vehicle rental Agency problem	Understanding
8.	Illustrate python Encapsulation	Applying
UNIT V – FILES,MODULES AND EXCEPTIONS		
About Files, Writing our First File, Reading a file line-at-a-time, Turning a file into a list of lines, Reading the Whole file at once, An Example, Directories.Modules – Random numbers, The time module, The math module, Creating your own modules, Namespaces, Scope and lookup rules, Attributes and the dot operator, Three import statement variants, Exceptions.		
PART –A		
1.	What is File	Understanding
2.	List out File Operations	Remembering
3.	List out File Operations Modes	Remembering
4.	What is directory	Understanding
5.	Purpose of Random Module	Understanding
6.	List out any 5 Math Module functions	Remembering
7.	What is Namesspace	Understanding
8.	What is Exception	Understanding
PART –B		
1.	Explain what is File ?File operations and Modes	Understanding
2.	Illustrate how to write and read contents to / from file	Applying
3.	Illustrate read, readLne,readLines functions	Applying
4.	Discuss about any 2 built in modules	Understanding
5.	Write about Math Modules	Understanding
6.	Write about Namespaces	Understanding
7.	Discuss about Python Exception	Understanding
8.	Illustrate how to create our own Module	Applying

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