SIDDHARTH INSTITUTE OF ENGINEERING AND TECHNOLOGY :: PUTTUR
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QUESTION BANK (DESCRIPTIVE)

Subject with Code: Python Programming (20CS0511) **Course & Branch**: B.Tech & CSE,CSIT,CIC

Year & Sem: II & II **Regulation:** R20

UNIT –I
INTRODUCTION, DATA TYPES

1	A) Discuss about History of Python Language.	**[L2][CO1]**	**[4M]**
	B) List out the Features and Applications of Python.	**[L1][CO1]**	**[8M]**
2	A) i)Justify the term in python: REPL	**[L5][CO1]**	**[2M]**
	ii) How will you execute the Python Scripts?	**[L2][CO1]**	**[4M]**
	B) i) Define Variable and mention rules for choosing names of Variable with example.	**[L1][CO1]**	**[4M]**
	ii) How will you Assign values to variable?	**[L2][CO1]**	**[2M]**
3	A) Explain the variable and keywords with suitable example.	**[L2][CO1]**	**[6M]**
	B) Illustrate the Input and Output statements with example.	**[L2][CO1]**	**[6M]**
4	A) What is Indentation? Explain with example	**[L1][CO1]**	**[6M]**
	B) Write a python program to find total and average marks based on Input	**[L4][CO1]**	**[6M]**
5	What is data type? List out the data types with example.	**[L1][CO2]**	**[12M]**
6	A) Explain about the Single-Valued data types in python.	**[L2][CO2]**	**[6M]**
	B) Discriminate about the Multi-Valued Data types with example.	**[L5][CO2]**	**[6M]**
7	Describe the List and its Methods with example.	**[L1[CO2]**	**[12M]**
8	Discuss the basic Tuple Operations with examples.	**[L2][CO2]**	**[12M]**
9	A) What is Set? Explain set Operations.	**[L1][CO2]**	**[6M]**
	B) What is Dictionary? Explain the Methods available in Dictionary.	**[L1][CO2]**	**[6M]**
10	Demonstrate the String and its Methods with example.	**[L2][CO2]**	**[12M]**

UNIT –II

OPERATORS AND EXPRESSIONS, CONTROL FLOW

1	Classify various types of Operators in Python and write any 4 types of Operators.	**[L2][CO2]**	**[12M]**
2	A) List and explain different Arithmetic, Comparison and Assignment Operators supported by Python.	**[L1][CO2]**	**[6M]**
	B) i) Explain the Logical operators with example.	**[l2][CO2]**	**[3M]**
	ii)Write a python program to find whether a given number is Even or Odd	**[L4[CO1]**	**[3M]**
3	A) Discuss the Membership and Identity operators with example.	**[L2][CO2]**	**[6M]**
	B) write a python program to find biggest number among three numbers	**[L1][CO1]**	**[6M]**
4	A) Explain the Bitwise operators with example.	**[L2][CO2]**	**[6M]**
	B) Rate the order of execution of different Expressions by evaluating them through python program**.**	**[L5][CO2]**	**[6M]**
5	Illustrate different Conditional statements in python with appropriate examples. i) if ii) if-else iii) i) if-elif-else iv) nested if	**[L2][C01]**	**[12M]**
6	Examine the syntax of the following statements with example program. i) While loop ii) for loop	**[L4][CO1]**	**[12M]**
7	A) Discuss the term: Range Write a for loop that prints numbers from 0 to 20, using range function.	**[L2][CO1]**	**[6M]**
	B) Create a python program to generate the multiplication table based on user input.	**[L6][CO1]**	**[6M]**
8	A) What are the different loop control statements available in Python? Explain with suitable examples.	**[L1][CO1]**	**[6M]**
	B) Write a python program to calculate sum of natural numbers.	**[L4][CO1]**	**[6M]**
9	A) Analyze the Python jump statements with suitable examples.	**[L6][CO1]**	**[6M]**
	B) Explain break, continue and Pass statement with the help of for loop with an example.	**[L2][CO1]**	**[6M]**
10	A) Create a Python program to display Fibonacci series.	**[L6][CO1]**	**[6M]**
	B) Develop a Python program to Swapping of two numbers with and without using temporary variable.	**[L6][CO1]**	**[6M]**

UNIT –III
FUNCTIONS, OBJECT ORIENTED PROGRAMMING

1	A) Define function and explain the types of functions with an example.	**[L1][CO3]**	**[6M]**
	B) Discuss about key word arguments with example.	**[L2][CO3]**	**[6M]**
2	Explain about different types of arguments in Python.	**[L2][CO3]**	**[12M]**
3	A) Describe about default arguments with suitable program.	**[L2][CO3]**	**[6M]**
	B) Illustrate lambda function with example.	**[L3][CO3]**	**[6M]**
4	A) Define Variable-length arguments? Explain with example.	**[L1][CO3]**	**[6M]**
	B) Explain about Anonymous and fruitful functions with examples.	**[L2][CO3]**	**[4M]**
5	A) Create Recursive function to find factorial of a number.	**[L6][CO3]**	**[6M]**
	B) Express function to do all arithmetic operations.	**[L2][CO3]**	**[6M]**
6	A) Narrate Scope of a variable in a function.	**[L2][CO3]**	**[6M]**
	B) Write a python Program to find right most digit in the entered number using return statement	**[L1][CO3]**	**[6M]**
7	A) Define Class and Object with example code.	**[L1][CO4]**	**[6M]**
	B) Analyze the term: Self-variable with code.	**[L4][CO4]**	**[6M]**
8	What is Inheritance? Illustrate types of inheritance with python code.	**[L2][CO4]**	**[12M]**
9	A) Describe about class Constructor (_init_()) with example.	**[L2][CO4]**	**[6M]**
	B) Demonstrate implementation of hierarchical inheritance in Python, with a program.	**[L2][CO4]**	**[6M]**
10	A) What is Polymorphism? How will you perform Method Overloading?	**[L1][CO4]**	**[6M]**
	B) Illustrate Method Overriding in Python with suitable example.	**[L3][CO4]**	**[6M]**

UNIT –IV
MODULES, PACKAGES, EXCEPTION HANDLING

1	What is Module in Python? Explain, how the Modules are used in python program with an example code.	**[L5][CO3]**	**[12M]**
2	A) Describe about name spacing.	**[L2][CO3]**	**[6M]**
	B) Explain about the import statement in modules.	**[L2][CO3]**	**[6M]**
3	A) Describe the types of namespaces in Python?	**[L2][CO3]**	**[6M]**
	B) Explain the from import statement in modules.	**[L5][CO3]**	**[6M]**
4	What is package in Python? Explain the use of packages in your program with an example code.	**[L3][CO6]**	**[12M]**
5	A) Analyze the term : PIP. Explain installing packages via PIP.	**[L3][CO6]**	**[6M]**
	B) What is numpy? How to create ndarray and write one example?	**[L3][CO6]**	**[6M]**
6	A) List the steps to create a 1D array and 2D array in numpy	**[L1][CO4]**	**[6M]**
	B) what is pandas? Write some functions of pandas	**[L3][CO6]**	**[6M]**
7	Explain briefly about pandas data structures with example programs	**[L2][CO6]**	**[12M]**
8	A) Classify Errors and Exception Handling in Python programming.	**[L4][CO4]**	**[6M]**
	B) Explain try except block in detail.	**[L2][CO4]**	**[6M]**
9	A) Write a python code using try-except-else-finally statement in python.	**[L3][CO4]**	**[6M]**
	B) What is a Raising Exception? Write any user defined exception program with raising exception.	**[L1][CO4]**	**[6M]**
10	A) What is Regular expression in python? Illustrate searching with example program.	**[L2][CO5]**	**[6M]**
	B) Illustrate matching with example program.	**[L2][CO5]**	**[6M]**

UNIT –V
FUNCTIONAL PROGRAMMING, STANDARD LIBRAY, GUI PROGRAMMING

1	Describe in detail about Iterators and Generators with an example.	**[L2][CO6]**	**[12M]**
2	A) Discuss about Maps in python.	**[L2][CO6]**	**[6M]**
	B) Describe the Filters in python.	**[L2][CO6]**	**[6M]**
3	Explain about Functional Programming.	**[L4][CO6]**	**[12M]**
4	Narrate Python Files, its types, functions and operations that can be performed on files with examples.	**[L4][CO2]**	**[12M]**
5	A) Illustrate the Command line arguments.	**[L3][CO4]**	**[6M]**
	B) Explain the reading and writing files in python.	**[L2][CO2]**	**[6M]**
6	A) Create a Python Program to display the current date and time	**[L6][CO5]**	**[6M]**
	B) Write a Python program to demonstrate the file I/O Write a Python program to demonstrate the file I/O	**[L4][CO2]**	**[6M]**
7	Express about Mathematical functions in python.	**[L2][CO5]**	**[12M]**
8	A) Discuss the colors and filled shapes in python using turtle	**[L2][CO4]**	**[6M]**
	B) Illustrate Python Runtime Services and Data Compression.	**[L3][CO4]**	**[6M]**
9	Demonstrate about the GUI programming in Python A) Triangle B) Rectangle	**[L2][CO6]**	**[6M]** **[6M]**
10	A) What is Data Management and Object Persistence? Explain in detail.	**[L1][CO5]**	**[6M]**
	B) Describe the Turtle using python program.	**[L2][CO4]**	**[6M]**

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