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

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

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]	[6M]
	ii) How will you Assign values to variable?	[l2][CO1]	[6M]
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 iii) if-elif-else	[L4] [CO1]	[4M] [4M] [4M]
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]

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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) Explain try except block in detail.	[L2][CO4]	[6M]
6	Explain Python Built-in Exceptions.	[L5][CO4]	[12M]
7	a) Classify Errors and Exception Handling in Python programming.	[L4][CO4]	[6M]
	b) Express the term: user defined exceptions	[L1][CO4]	[6M]
8	a) Create code to illustrate try and except statements in Python.	[L6][CO4]	[6M]
	b) What is a Raising Exception? Explain with an example?	[L1][CO4]	[6M]
9	a) How will you handle an exception using try except block? Explain with the help of a program.	[L1][CO4]	[6M]
	b) What is Regular expression in python? Illustrate searching with example program.	[L2][CO5]	[6M]
10	a) Write a python code using try-except-else-finally statement in python.	[L3][CO4]	[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	a) Discuss the colors and filled shapes in python.	[L2][CO4]	[6M]
	b) Illustrate Python Runtime Services and Data Compression.	[L3][CO4]	[6M]
8	Express about Mathematical functions in python.	[L2][CO5]	[12M]
9	Demonstrate about the GUI programming in Python a) Triangle b) Rectangle	[L2][CO6]	[6+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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