Course Code: 18CS0517 **R18**

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

Subject with Code : PYTHON PROGRAMMING (18CS0517) **Course & Branch**: B.Tech (**ECE, EEE, Mech, Civil**)

Year & Sem: III-B.Tech –II Sem **Regulation:** R18

(Common to ECE, EEE, Mech, Civil)

UNIT –I

INTRODUCTION & DATA TYPES

2 Marks Questions				
1.	a.	What is the index in Python?	[L1,CO1]	[2M]
	b.	Define REPL.	[L1,CO1]	[2M]
	c.	How do you check the presence of a key in a dictionary?	[L1,CO2]	[2M]
	d.	What is isalpha() in Python?	[L1,CO2]	[2M]
	e.	How to copy one list to another?	[L1,CO2]	[2M]
2.	Illustrate the input and output statements with example.		[L4,CO1]	[10M]
3.	a)Write history of Python.		[L3,CO1]	[4M]
	b) List features and applications of Python.		[L1,CO1]	[6M]
4.	a) Explain about the Single-Valued data types in python.		[L2,CO2]	[5M]
	b) What is Indentation? Explain with example.		[L1,CO1]	[5M]
5.	a) Explain variable assignment with suitable example.		[L2,CO1]	[4M]
	b) What is data type? List out the data types with example.		[L1,CO1]	[6M]
6.	Elucidate the string and its methods with example.		[L2,CO2]	[10M]
7.	Discriminate about the Multi-Valued Data types with example.		[L4,CO2]	[10M]
8.	Describe the list and its methods with example.		[L2,CO2]	[10M]
9.	a) What is dictionary? Explain the methods available in dictionary.		[L1,CO2]	[6M]
	b) Implement the python program to calculate total and average marks based on input.		[L3,CO1]	[4M]
10.	a) Define Variable and mention rules for choosing names of Variable.		[L1,CO1]	[5M]
	b) What is Set? Explain set Operations.		[L2,CO2]	[5M]

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UNIT –II
OPERATORS AND EXPRESSIONS & CONTROL FLOW

1.	a.	Which operator is used to check both are identical?	[L1,CO1]	[2M]
	b.	What are the special operators in python?	[L1,CO1]	[2M]
	c.	List the arithmetic operators that python supports.	[L1,CO2]	[2M]
	d.	Which operator is used to check value/variable in the sequence?	[L1,CO2]	[2M]
	e.	Write syntax of for loop with example.	[L3,CO2]	[2M]
2.	Classify various types of operators in Python and write any 4 types of operators..		[L4,CO1]	[10M]
3.	Summarize Control flow structures in python.		[L5,CO2]	[10M]
4.	a) Explain Arithmetic operations (Addition, Subtraction, Multiplication, and Division) on integers. Input the two integer values and operator for performing arithmetic operation through keyboard.		[L2,CO1]	[5M]
	b) What are the different loop control statements available in Python? Explain with suitable examples.		[L2,CO2]	[5M]
5.	a) Create a Python program to display Fibonacci series.		[L6,CO1]	[4M]
	b) Explain break and continue statement with the help of for loop with an example.		[L2,CO2]	[6M]
6.	a) Write a Python program to find maximum among three numbers.		[L3,CO1]	[4M]
	b) Describe Python jump statements with examples.		[L2,CO2]	[6M]
7.	a) Explain the Logical and Bitwise operator with example.		[L2,CO2]	[5M]
	b) Develop a Python program to Swapping of two numbers with and without using temporary variable.		[L3,CO1]	[5M]
8.	a) What is an expression in Python? Explain order of evaluation with example.		[L1,CO1]	[6M]
	b) Create a python program to generate the multiplication table based on user input.		[L6,CO1]	[4M]
9.	a) Write a Python program to find sum of natural numbers.		[L3,CO2]	[5M]
	b) Discuss the assignment and bitwise operators supported in Python.		[L2,CO2]	[5M]
10.	a) Discuss the Membership and Identity operators with example.		[L2,CO2]	[5M]
	b) Create a Python program to print prime number series up to N.		[L6,CO2]	[5M]

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UNIT –III
FUNCTIONS & OBJECT ORIENTED PROGRAMMING

1.	a.	How do we write a function in Python?	[L1,CO3]	[2M]
	b.	What does the "self" keyword do?	[L1,CO4]	[2M]
	c.	Define Inheritance in Python programming.	[L1,CO4]	[2M]
	d.	What is a constructor and how does it used in python?	[L1,CO4]	[2M]
	e.	Define Polymorphism.	[L1,CO4]	[2M]
2.	a) Express function to do all arithmetic operations.		[L3,CO3]	[4M]
	b) What are formal and actual arguments explain with example?		[L1,CO2]	[6M]
3.	a) Create recursive function to find factorial of a number		[L6,CO3]	[5M]
	b) Illustrate lambda function with example.		[L4,CO3]	[5M]
4.	a) Discuss about key word arguments with example.		[L2,CO3]	[5M]
	b) Distinguish global and local variables with example.		[L4,CO3]	[5M]
5.	a) Define Variable-length arguments? Explain with example.		[L1,CO3]	[5M]
	b) Narrate scope of a variable in a function.		[L3,CO3]	[5M]
6.	a) Illustrate about default arguments with example.		[L4,CO3]	[5M]
	b) Write a function to return right most digit in the entered number		[L3,CO3]	[5M]
7.	a) Define class and object with example code.		[L1,CO4]	[5M]
	b) Write about self-variable with code.		[L3,CO4]	[5M]
8.	What is inheritance? Illustrate types of inheritance with python code.		[L2,CO4]	[10M]
9.	a) Compare method overloading and overriding.		[L2,CO4]	[6M]
	b) Describe about class constructor (_init_()) with example.		[L3,CO4]	[4M]
10.	Illustrate polymorphism with example.		[L4,CO4]	[10M]

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UNIT –IV
MODULES & PACKAGES

1.	1.	Define module in python.	[L1,CO3]	[2M]
	2.	List few Built-in Exceptions in Python.	[L1,CO4]	[2M]
	3.	What is import and from...import statement?	[L1,CO4]	[2M]
	4.	What is an exception? Give an example.	[L1,CO4]	[2M]
	5.	Name the optional statements possible inside a try-except block in Python.	[L1,CO4]	[2M]
2.	a) Describe about name spacing.		[L2,CO3]	[5M]
	b Explain about the import statement in modules.		[L2,CO6]	[5M]
3.	a) What are packages? Give an example of package creation in Python.		[L3,CO6]	[5M]
	b) Create code to illustrate try and except statements in Python.		[L6,CO4]	[5M]
4.	Summarize the different types of Exceptions in Python.		[L5,CO4]	[10M]
5.	a)What is an Raising Exception with an example?		[L1,CO4]	[5M]
	b) Elaborate User defined Exception with an example.		[L1,CO4]	[5M]
6.	Describe about Handling Exceptions in detail with examples.		[L2,CO4]	[10M]
7.	a) Illustrate searching with example program.		[L4,CO5]	[5M]
	b) Illustrate matching with example program.		[L4,CO5]	[5M]
8.	Define PIP. Discuss package installation via pip.		[L2,CO6]	[10M]
9.	a) Explain about the from import statement in modules.		[L2,CO6]	[5M]
	b) Illustrate about scoping.		[L4,CO4]	[5M]
10.	a) List some few common Exception types and explain when they occur.		[L1,CO4]	[5M]
	b) Write a small code using try-except-else-finally statement in python.		[L3,CO4]	[5M]

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UNIT –V
FUNCTIONAL PROGRAMMING & STANDARD LIBRARY

1.	a.	What are Python Generators?	[L1,CO4]	[2M]
	b.	Compare Iterator and Iterable.	[L2,CO6]	[2M]
	c.	How to open a text file and display its contents?	[L1,CO2]	[2M]
	d.	What is the first argument of command line in python?	[L1,CO4]	[2M]
	e.	Define Turtle in Python.	[L1,CO4]	[2M]
2.	Describe in detail about Iterators and Generators with an example.		[L2,CO6]	[10M]
3.	a) Discuss about maps in python.		[L3,CO6]	[5M]
	b) Discuss about filters in python.		[L3,CO6]	[5M]
4.	Explain in detail about Python Files, its types, functions and operations that can be performed on files with examples.		[L2,CO2]	[5M]
5.	Demonstrate about the GUI programming in Python a) Triangle b) Rectangle		[L3,CO6]	[5+5M]
6.	a) Illustrate about Python Runtime Services.		[L4,CO4]	[5M]
	b) Illustrate about Command line arguments.		[L4,CO4]	[5M]
7.	Express about Mathematics functions in python.		[L6,CO5]	[10M]
8.	a) Explain about the reading files in python.		[L3,CO2]	[6M]
	b) Explain about Data Compression.		[L3,CO2]	[4M]
9.	a) What is Data Management and Object Persistence?.		[L1,CO5]	[6M]
10.	b) Draw Circle in Python using Turtle		[L4,CO4]	[4M]
11.	Explain about Functional Programming.		[L4,CO6]	[10M]

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