SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR (AUTONOMOUS)

Siddharth Nagar, Narayanavanam Road – 517583

QUESTION BANK (DESCRIPTIVE)

Subject with Code: Python Programming (20CS5002)   **Course & Branch**: M.Tech & CSE

Year & Sem: I & I   **Regulation:** R20

UNIT –I
INTRODUCTION

1	a) Write history of Python.	[L3][CO1]	[4M]
	b) List features and applications of Python.	[L1][CO1]	[8M]
2	a) Justify the REPL in python?	[L5][CO1]	[4M]
	b) Define Variable and mention rules for choosing names of Variable with example.	[L1][CO1]	[8M]
3	a) What is Indentation? Explain with example.	[L1][CO1]	[6M]
	b) Explain variable assignment with suitable example.	[L2][CO1]	[6M]
4	a) Illustrate the input and output statements with example.	[L2][CO1]	[6M]
	b) Implement the python program to calculate total and average marks based on input.	[L3][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) What is Set? Explain set Operations.	[L1][CO2]	[6M]
7	Discriminate about the Multi-Valued Data types with example.	[L6][CO2]	[12M]
8	Describe the list and its methods with example.	[L6][CO2]	[12M]
9	a) Discuss the basic Tuple operations with examples.	[L2][CO2]	[6M]
	b) What is dictionary? Explain the methods available in dictionary.	[L1][CO2]	[6M]
10	Elucidate the string and its methods with example.	[L2][CO2]	[12M]

UNIT –II

OPERATORS AND EXPRESSIONS

1	Classify various types of operators in Python and write any 4 types of operators.	[L2][CO2]	[12M]
2	a) What is an expression in Python? Explain order of evaluation with example.	[L1][CO2]	[8M]
	b) Write a python program to find whether a given number is even or odd.	[L3][CO1]	[4M]
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.	[L3][CO1]	[6M]
4	a) List and explain different arithmetic operators supported by Python.	[L1][CO2]	[6M]
	b) Explain the Bitwise operators with example.	[L2][CO2]	[6M]
5	List different conditional statements in python with appropriate examples.	[L1][C01]	[12M]
6	Examine the syntax of the following statements with example program. i) for loop ii) while loop iii) if-elif-else	[L3][CO1]	[4M] [4M] [4M]
7	a) What is Range in Python? and Write a for loop that prints numbers from 0 to 17, using range function.	[L1][CO1]	[4M]
	b) Explain break and continue statement with the help of for loop with an example.	[L2][CO1]	[8M]
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 find sum of natural numbers.	[L3][CO1]	[6M]
9	a) Describe Python jump statements with examples.	[L6][CO1]	[8M]
	b) Create a python program to generate the multiplication table based on user input.	[L6][CO1]	[4M]
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

1	a) Define function and explain the types of functions with an example.	[L1][CO3]	[6M]
	b) Express function to do all arithmetic operations.	[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) Create recursive function to find factorial of a number.	[L5][CO3]	[6M]
4	a) Define Variable-length arguments? Explain with example.	[L1][CO3]	[8M]
	b) Explain about fruitful functions with examples.	[L2][CO3]	[4M]
5	a) Illustrate lambda function with example.	[L3][CO3]	[6M]
	b) Discuss about key word arguments with example.	[L2][CO3]	[6M]
6	a) Narrate scope of a variable in a function.	[L3][CO3]	[6M]
	b) Write a function to return right most digit in the entered number	[L3][CO3]	[6M]
7	a) Define class and object with example code.	[L1][CO4]	[6M]
	b) Write about self-variable with code.	[L3][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) What is method overriding in Python?	[L2][CO4]	[6M]
10	a) Demonstrate implementation of hierarchical inheritance in Python, with a program.	[L3][CO4]	[6M]
	b) How can we achieve method overloading?	[L1][CO4]	[6M]

UNIT –IV
MODULES

1	What is Module in Python? Explain, how can you use Modules in your program explain 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 about the from import statement in modules.	[L5][CO3]	[6M]
4	Write a brief note on PIP. Explain installing packages via PIP.	[L3][CO6]	[12M]
5	a) What is package in Python? Explain, how can you use package in your program with an example code?	[L3][CO6]	[6M]
	b) Explain try except block in detail.	[L2][CO4]	[6M]
6	Explain Python Built-in Exceptions?	[L5][CO4]	[12M]
7	a) Write about Errors and Exception Handling in Python programming?	[L3][CO4]	[6M]
	b) Elaborate user defined exceptions in Python?	[L1][CO4]	[6M]
8	a) Create code to illustrate try and except statements in Python.	[L6][CO4]	[6M]
	b) What is a Raising Exception with an example?	[L1][CO4]	[6M]
9	a) How to handle an exception using try except block? Explain with the help of a program.	[L1][CO4]	[6M]
	b) Illustrate searching with example program.	[L4][CO5]	[6M]
10	a) Write a small code using try-except-else-finally statement in python.	[L3][CO4]	[6M]
	b) Illustrate matching with example program.	[L4][CO5]	[6M]

UNIT –V
FUNCTIONAL 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) Discuss about filters in python.	[L2][CO6]	[6M]
3	Explain about Functional Programming.	[L4][CO6]	[12M]
4	Explain in detail about Python Files, its types, functions and operations that can be performed on files with examples.	[L4][CO2]	[12M]
5	a) Illustrate about Command line arguments.	[L3][CO4]	[6M]
	b) Explain about the reading files in python.	[L2][CO2]	[6M]
6	a) Write about Dates and Times.	[L3][CO5]	[6M]
	b) Write about the writing files in python.	[L3][CO2]	[6M]
7	a) Explain about colors and filled shapes.	[L2][CO4]	[6M]
	b) Illustrate about Python Runtime Services and Data Compression.	[L3][CO4]	[6M]
8	Express about Mathematics functions in python.	[L2][CO5]	[12M]
9	Demonstrate about the GUI programming in Python a) Triangle b) Rectangle	[L3][CO6]	[6+6M]
10	a) What is Data Management and Object Persistence?	[L1][CO5]	[6M]
	b) Draw Circle in Python using Turtle.	[L4][CO4]	[6M]

PREPARED BY:
Dr.S.Tamilselvan, Associate. Professor. CSE, SIETK.