



SIDDARTHA INSTITUTE OF SCIENCE AND TECHNOLOGY::PUTTUR
QUESTION BANK (DESCRIPTIVE)

Subject with Code: PYTHON PROGRAMMING (19CS0501)

Course & Branch: B.Tech – CIVIL,EEE,ME

Year & Sem: I B.Tech & II Sem

Regulation: R19

UNIT – 1

1. a) What is an algorithm? Explain characteristics of an algorithm. [L1][4M]
b) What are the features and applications of Python? [L1][4+4M]
2. Explain about the input and output statements or methods with example. [L2] [6+6M]
3. a) Explain about the Single-Valued data types in python. [L2] [6M]
b) What is Indentation? Explain with example. [L1] [6M]
4. a) What is data type? List out the types of data types with example. [L1] [6M]
b) Explain variable assignment with suitable example. [L2] [6M]
5. Describe an algorithm for the following [L3] [7+5M]
 - i) Prime number or not
 - ii) Odd or even
6. Define Flowchart and explain symbols used in flowchart with example. [L1] [2+10M]
7. Explain briefly about the Multi-Valued Data types with example. [L2] [12M]
8. a) Enumerate the list and its methods with example. [L2] [6M]
b) Elucidate the string and its methods with example. [L2] [6M]
9. a) What is dictionary? Explain the methods available in dictionary. [L1] [6M]
b) Differentiate between the tuple and sets in python. [L2] [6M]
10. a) Define Variable and mention rules for choosing names of Variable. [L5] [6M]
b) Implement the python program to calculate total and average marks based on input.[L5] [6M]

UNIT – 2

1. List various types of operators in Python and write any 4 types of operators. [L1] [12M]
2. Explain in detail about Control flow structures in python. [L2] [12M]
3. Outline with an example the assignment and bitwise operators supported in Python. [L2] [6+6M]
4. a) Write a Python program to print prime number series up to N. [L3] [6M]
b) Write a Python program to Swapping of two numbers with and without using temporary variable. [L3] [6M]
5. a) If the age of Ram, Sam, and Khan are input through the keyboard, write a python program to determine the eldest and youngest of the three. [L3] [6M]
b) Arithmetic operations (Addition, Subtraction, Multiplication, and Division) on integers. Input the two integer values and operator for performing arithmetic operation through keyboard. [L4] [6M]
6. a) Write a python program to find the given number is odd or even. [L3] [6M]
b) Explain break and continue statement with the help of for loop with an example. [L5] [6M]
7. Explain the syntax of the following statements [L5] [3+3+3+3M]
 - i) for loop
 - ii) while loop
 - iii) if - else
 - iv) if-elif-else
8. Explain expressions in python with order of evaluation with example. [L5] [12M]
9. a) Develop a program to find the largest among three numbers. [L6] [6M]
b) Write a python program to find the given year is leap or not. [L3] [6M]
- 10.a) Write a python program to print factorial of a given number [L3] [6M]
b) Implement Python program to find sum of natural numbers. [L5] [6M]

UNIT – 3

1. a) Define function? Write its syntax [L1] [3M]
 b) What are formal and actual arguments [L1] [4M]
 c) Write functions to do all arithmetic operations [L3] [5M]
2. a) What is recursive function? [L1] [3M]
 b) Explain lambda function [L5] [4M]
 c) Write recursive function to find factorial of a number [L3] [5M]
3. a) Differentiate key word and default arguments [L4] [6M]
 b) Differentiate global and local variables [L4] [6M]
4. a) Compare class and object with python code [L5] [6M]
 b) Narrate scope of a variable in a function [L2] [6M]
5. a) Write about class constructor(_init_),self-variable [L3] [5M]
 b) Compare method overloading and overriding [L5] [7M]
6. a) A 4 digit integer is entered through the keyboard. Write a function to Calculate the sum of the 4 digit number both without recursion and using recursion [L4] [7M]
 b) What are the cons of using functions [L1] [5M]
7. What is inheritance? Illustrate types of inheritance with python code [L1] [12M]
8. a) Write a function to display ASCII Code of entered character [L3] [5M]
 b) Describe how an object is passed as parameter to a method [L5] [7M]
9. a) Write a class with following criteria [L3] [7M]
 Class name: Flower
 Objects: lilly, rose, hibiscus
 Properties: price,color,smell
 Methods: get(), display()
 b) Narrate about polymorphism [L2] [5M]
10. a) Write a function to return right most digit in the entered number [L3] [5M]
 b) How do we achieve code reusability in python? Write a python code to Explain code reusability [L1] [7M]

UNIT – 4

- 1 . a) Explain in details about namespaces and scoping. [L5] 8M
b) Explain about the import statement in modules [L5] 4M
2. a) What are packages? Give an example of package creation in Python. [L1] 5M
b) Write a small code to illustrate try and except statements in Python. [L3] 5M
c) What are modules in Python? [L1] 2M
- 3 . Explain about the different types of Exceptions in Python. [L5] 12M
- 4 . Describe about Handling Exceptions in detail with examples. [L4] 12M
5. a) What is module? [L1] 2M
b) How to create a module? Explain with example. [L1] 10M
- 6
a What is searching? Explain with example program. [L1] 6M
b What is matching? Explain with example program. [L1] 6M
- 7 a List some few common Exception types and explain when they occur [L4] 6M
b What is an Raising Exception? [L1] 3M
c What is an User defined Exception? [L1] 3M
- 8 a Describe the any one regular expression [L4] 6M
b Explain package installation via pip [L5] 6M
- 9 Write a syntax for Handling Exceptions with example [L3] 12M
i try
ii try-except
iii try-except-else
iv try-except-else-finally
- 10 a What are modules in Python? [L1] 3M
b How to create a module? [L1] 3M
c What is import statement in modules ? [L1] 3M
d What is from import statement in modules ? [L1] 3M

UNIT – 5

- 1 Explain in detail about Python Files, its types, functions and operations that can be performed on files with examples. [L5] 12M
- 2 a Explain about command line arguments [L5] 4M
b Explain about reading and writing files in python [L5] 8M
- 3 a Explain about Data Compression [L5] 4M
b Explain about Dates and Times [L5] 8M
- 4 a What is mean by Iterators and Generators? [L1] 6M
b Write about map and filter in Python? [L3] 6M
- 5 Demonstrate about the GUI programming in Python [L2] 12M
i Circle
ii Triangle
iii Rectangle
- 6 a What is mean by Text File? Explain about reading and writing files in python? [L1] 8M
b What is turtle with an example? [L1] 4M
- 7 Explain about Functional Programming. [L5] 12M
i Iterators
ii Generators
iii Maps
iv Filters
- 8 Explain about Mathematics function in python [L5] 12M
- 9 A Explain about Python Runtime Services [L5] 8M
B Explain about Data Compression [L5] 4M
- 10 a What is Data Management and Object Persistence [L1] 5M
B Explain about Dates and Times [L5] 7M

