

VPMP Polytechnic, Gandhinagar

Department of Computer Engineering

Subject: Scripting Language-Python (4330701)

Semester: 3rd

Assignment: 1 (Unit 1 Fundamentals of Python)

1. Give the difference between Scripting Language and Programming Language.
2. List and explain features of Python.
3. Write Application of python.
4. Explain basic structure of Python Program.
5. Explain keyword, identifier and variable.
6. Explain datatype with example.
7. Explain input and print method of python.
8. Explain type casting with example.
9. List out operator and explain bitwise operator.

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Assignment: 2 (Unit 2 Control Flow Structures)

1. Explain python selection statements with flowchart, syntax and example.
2. Explain while loop with flowchart, syntax and example.
3. Explain for loop and nested for loop with flowchart, syntax and example.
4. Explain switch case statement with flowchart, syntax and example.
5. Explain break, continue and pass statement with flowchart, syntax and example.

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Assignment: 3 (Unit 3 Lists, Tuples, Sets and Dictionaries)

1. Define List. Write Characteristics of list.
2. How to create a list. Explain append(),extend(),insert() and delete operations on list.
3. Write Characteristics of Tuple. Explain indexing and slicing in tuple.
4. Write Characteristics of Set.
5. How python set is modified? Or Explain add(),update(),remove() and discard() method of set.
6. Explain mathematical operations on Set(Union,Intersection,difference and symmetric difference)
7. Write Characteristics of Dictionary. Explain operations on dictionary (Accessing,changing,updating and removing)

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Assignment: 4 (Unit 4 Functions and Modules)

1. Define function. Why do we need it?
2. Give difference between User Define Function and Built in Function.
3. What is Recursion? Explain with example.
4. What are modules in Python? Write Example of user defined module.
5. List out method of rand module. Explain any four with example.
6. Explain any five mathematical functions of math module.
7. Explain main classes of Date and Time module with one Example.
8. List out types of plots in Matplotlib. Explain any one with example.
9. What is package? How to Create and import package. Explain with example.
10. Write down steps for PIP Installation.
11. Write a program using the function to find maximum from two numbers.
12. Create a user defined function which prints square of all the even numbers between 1 to 5
13. Create a user defined function which will return the count of numbers divisible by 5 in range 1 to 20.

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Assignment: 5 (Unit 5 String Processing and File Handling)

- 1) Define String. How to create list of string.
- 2) How to use slicing operator for string. Explain with example.
- 3) Explain following function with example: isalnum(), isalpha (), isdigit(), isidentifier (), islower(), isupper(), and isspace()
- 4) Explain following function with example: endswith(), startswith(), find(), rfind(), count() ,
- 5) List out Formatting function and explain any two.
- 6) Difference between Text files and Binary files:
- 7) Explain open() and close() for file with example.
- 8) Explain read(),readline() and readlines () for file with example.
- 9) Explain write(),append() and writelines () for file with example.