

SARDAR PATEL UNIVERSITY
Vallabh Vidyanagar
Programme & Subject : B.C.A.
Semester – VI
US06DBCA21 : Python Programming
(Syllabus Effective from June 2020)

Credits : 4

External : 70 Marks

Contact Hrs per Week : 4

University Examination Duration: 3 Hrs

All units carry equal weightage

Unit	Description in detail
I	Introduction to Python Python Overview and History, Features of Python, Difference Between C, JAVA & Python, Applications of Python, Programming Structure of Python, Python Environment Setup, Basic Syntax of python with Data Types, Python variables, Casting, Operators, Comments, User Input, , Decision making and Branching,
II	Python Structure with Basic Collation Looping, Python Collections-List, Tuple, Set, Dictionary, Array, Understating Python String, RegEx Module (Regular Expressions), Python JSON
III	Object Orientated Concept and Exception Handling with Debugging Concept of Class, Object and Instances, Constructor, class attributes and destructors, Functions, Scope, Iterators, Inheritance, method overloading and overriding in python, Modules, Lamda function, Debugging, Python Error with its Types, Exception handling in Python, Try -finally, raising exceptions, user-defined exceptions.
IV	File IO Management and Databases File Handling (Introduction, Create, Read, Write and Delete File) Database connection using MYSQL, Creating, Searching and Drop Tables, Record Manipulation (Select, Insert, Update, Delete, Searching, Sorting, Join)

Basic Text & Reference Books :-

1. John V Guttag. "Introduction to Computation and Programming Using Python", Prentice Hall of India
2. Wesley J. Chun. "Core Python Programming -Second Edition", Prentice Hall
3. Learning Python: By Mark Lutz, David Ascher
4. Exploring PythonBook by Timothy Budd
5. Head First Python: A Brain-Friendly Guide by Aaul Barry
6. Introducing Python-Modern Computing in Simple Packages –Bill Lubanovic, O,,Reilly Publication
7. Introduction to Computer Science Using Python-Charles Dierbach, Wiley Publication Learning with Python “, Green Tea Press, 2002
8. Beginning Programming with Python for DummiesPaperback–2015 byJohn Paul Mueller
9. <https://www.w3schools.com/python>
10. <https://www.tutorialspoint.com/python>