PYTHON APPLICATION PROGRAMMING
[As per Choice Based Credit System (CBCS) scheme]
(Effective from the academic year 2017 -2018)
SEMESTER – VI

Subject Code	17CS664	IA Marks	40
Number of Lecture Hours/Week	3	Exam Marks	60
Total Number of Lecture Hours	40	Exam Hours	03

CREDITS – 03

	Teaching Hours
Module – 1	
Why should you learn to write programs, Variables, expressions and statements, Conditional execution, Functions	8 Hours
Module – 2	
Iteration, Strings, Files	8 Hours
Module – 3	
Lists, Dictionaries, Tuples, Regular Expressions	8 Hours
Module – 4	
Classes and objects, Classes and functions, Classes and methods	8 Hours
Module – 5	
Networked programs, Using Web Services, Using databases and SQL	8 Hours

Course outcomes: The students should be able to:

- Understand Python syntax and semantics and be fluent in the use of Python flow control and functions.
- Demonstrate proficiency in handling Strings and File Systems.
- Implement Python Programs using core data structures like Lists, Dictionaries and use Regular Expressions.
- Interpret the concepts of Object-Oriented Programming as used in Python.
- Implement exemplary applications related to Network Programming, Web Services and Databases in Python.

Question paper pattern:

The question paper will have TEN questions.

There will be TWO questions from each module.

Each question will have questions covering all the topics under a module.

The students will have to answer FIVE full questions, selecting ONE full question from each module.

Text Books:

1. Charles R. Severance, "Python for Everybody: Exploring Data Using Python 3", 1st Edition, CreateSpace Independent Publishing Platform, 2016. (http://do1.dr-chuck.com/pythonlearn/EN_us/pythonlearn.pdf) (Chapters 1 – 13, 15)
2. Allen B. Downey, "Think Python: How to Think Like a Computer Scientist", 2nd Edition, Green Tea Press, 2015. (http://greenteapress.com/thinkpython2/thinkpython2.pdf) (Chapters 15, 16, 17)(Download pdf files from the above links)

Reference Books:

1. Charles Dierbach, "Introduction to Computer Science Using Python", 1st Edition, Wiley India Pvt Ltd. ISBN-13: 978-8126556014
2. Mark Lutz, "Programming Python", 4th Edition, O'Reilly Media, 2011.ISBN-13: 978-9350232873

3. Wesley J Chun, "Core Python Applications Programming", 3rdEdition,Pearson Education India, 2015. ISBN-13: 978-9332555365

4. Roberto Tamassia, Michael H Goldwasser, Michael T Goodrich, "Data Structures and Algorithms in Python",1stEdition, Wiley India Pvt Ltd, 2016. ISBN-13: 978-8126562176

5. ReemaThareja, "Python Programming using problem solving approach", Oxford university press, 2017

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