

KARPAGAM ACADEMY OF HIGHER EDUCATION (Deemed to be University) (Established Under Section 3 of UGC Act, 1956) Coimbatore - 641 021, India FACULTY OF ARTS, SCIENCE AND HUMANITIES (FASH) Department of CS,CA & IT

III B.Sc CS

V SEMESTER

BATCH : 2016 - 2019

16CSU514B PROGRAMMING IN PYTHON - PRACTICAL 3H – 1C

Instruction Hours / week: L: 0 T: 0 P: 4 Marks: Int : 40 Ext : 60 Total: 100

COURSE OBJECTIVES

- To learn how to design and program Python applications.
- To define the structure and components of a Python program.
- To learn how to write loops and decision statements in Python.
- Solve problems requiring the writing of well-documented programs in the Python language, including use of the logical constructs of that language;
- Demonstrate significant experience with the Python program development environment.

COURSE OUTCOME

After the course, students should be able to:

- implement a given algorithm as a computer program (in Python)
- adapt and combine standard algorithms to solve a given problem
- Apply top-down concepts in algorithm design.
- Apply decision and repetition structures in program design.
- Write Python programs to illustrate concise and efficient algorithms

PROGRAM LIST

- 1. Write a menu driven program to convert the given temperature from Fahrenheit to Celsius and vice versa depending upon user's choice.
- WAP to calculate total marks, percentage and grade of a student. Marks obtained in each of the three subjects are to be input by the user. Assign grades aCSUording to the following criteria :
 Grade A: Percentage >=80
 Grade B: Percentage>=70 and <80
 Grade C: Percentage>=60 and <70
 Grade D: Percentage>=40 and <60
 Grade E: Percentage<40
- 3. Write a menu-driven program, using user-defined functions to find the area of rectangle, square, circle and triangle by accepting suitable input parameters from user.
- 4. WAP to display the first n terms of Fibonacci series.
- 5. WAP to find factorial of the given number.
- 6. WAP to find sum of the following series for n terms: $1 2/2! + 3/3! \cdots n/n!$
- 7. WAP to calculate the sum and product of two compatible matrices.