## ASIA PACIFIC BCA COLLEGE

# Affiliated to Gujarat University

Subject: SEM-5 CC-302 & CC-305 Python Programming

### **UNIT-2 Modules, Arrays, Functions, List, Tuples and Dictionaries**

### Theory:

- 1. What is Modules? How many types of Modules? How to create a user defined Module? Explain with example.
- 2. What is an array in Python? State and explain the advantages of using an array in python.
- 3. What are dictionaries in Python? Explain any 5 methods of dictionaries.
- 4. What is function? Explain with suitable example. Also differentiate between Function and a method.
- 5. Explain Anonymous Functions with suitable example.
- 6. What is List and Tuple? Explain with example. Write a difference between List and Tuple.

#### **Practical:**

- 1. Write a program to sort the array elements using bubble sort technique.
- 2. Write a program to generate prime numbers with the help of a function to test prime or not.
- 3. Create a dictionary that will accept cricket players name and scores in a match. Also we are retrieving runs by entering the player's name.
- 4. Create a program name "employee.py" and implement the functions DA, HRA, PF, and ITAX.
  - Create another program that uses the function of employee module and calculates gross and net salaries of an employee.
- 5. Write a program to demonstrate the use of Positional argument, keyword argument and default arguments.
- 6. Write a program to show variable length argument and its use.
- 7. Write a lambda/Anonymous function to find bigger number in two given numbers.
- 8. Create a decorator function to increase the value of a function by 3.