

**BCA(Hons) 5<sup>th</sup> Semester Examination, 2020**

**Subject : Computer Application**

**Paper : BCA-503 (Python Programming)**

**Full Marks: 80**

**Time: 3 Hours**

**1. Answer any six question:**

**6x5=30**

- (a) Discuss the benefits of Open Source software.
- (b) Write a Python program to generate first 'N' Fibonacci numbers.
- (c) Explain while loop and if statement in Python with an example .
- (d) Write a Python program to calculate the GCD of two integers.
- (e) What is dictionary in Python? Explain it with an example.
- (f) Differentiate between Range and Xrange in python
- (g) Discuss memory management in Python? How do you slice a list in Python?
- (h) What is structured programming in context of Python language?

**2. Answer any five question:**

**5x10=50**

- (a) Write a Python program to calculate product of two compatible matrices.
- (b) Explain various data types in Python. What is namespace in Python?
- (c) Write a menu driven program using user defined functions to find the area of a circle and square in Python programming.
- (d) Write a Python program to check whether a number is prime or not.  
Write a Python program to find factorial of a number
- (e) Briefly explain stack diagrams for recursive functions in Python.
- (f) Discuss different list operations of Python. What is Python PATH?
- (g) Write short notes on the following.
  - (i) Ternary operators in Python.
  - (ii) Usage of negative indexes.