BCA 5th Semester (Honours) Examination,2021(CBCS)
Subject : Computer Application
Paper : BCA-503(Python Programming)

Time: 3 Hours **Full Marks: 80**

A)Answer any six question: 6 x 5 = 30

1.(a) What is an identifier in Python?
(b) Write a Python program to calculate the GCD of two numbers. 1+4=5

2.(a) What type of language is Python?
(b) Write a Python program to find factorial of a number. 1+4=5

3.(a) What is the difference between list and tuple.
(b) Write a Python program to generate first 'N' Fibonacci numbers. 1+4=5

4.(a) Compare Python with C language.
(b) Explain various data types in Python. 2+3=5

5.(a) What is python path?
(b) Mention six benefits of using Python. 2+3=5

6.(a) What is recursion?
(b)Write a Python program using recursion to generate ten odd number.
2+3=5

7.(a) What is namespace in Python?
(b) Write a Python program to check whether a number is prime or not.
1+4=5

8.(a) What are Python modules?
(b) Explain with example while loop and if statement in Python. 2+3=5

B)Answer any five questions: 5 x 10 = 50

1.(a) Write the basic operations of a stack.
(b) Write a program to implement simple stack using Python. 2+8=10

2.(a) What is structured programming in context of Python language?
(b) What is dictionary in Python? Write a program using dictionary. 2+(2+6)=10

3. Write a Python program to perform bubble sorting. 10

4. Write a menu driven program using user defined functions to find the area of circle and a square in Python programming. 10

5.(a) How is memory managed in Python ?
(b) Write a Python program to find sum of series

$$S = \frac{1}{1!} - \frac{2}{2!} + \frac{3}{3!} - \frac{4}{4!} + \cdots \frac{n}{n!}$$ 2+8=10

6. Write a Python code that perform binary search technique. 10

7. Write a Python program to multiply two matrices. 10