

**BCA-E606**  
**Bachelor of Computer Application**  
**(Sixth Semester), Examination-2020**

**Programming Using Python**

*Total Time: 3:00 Hours*  
*(Including upload time)*  
**Max. Marks: 60**

**Note:** *All questions have to attempted.*

**Section – A**

1. Multiple choice/True & False/Fill in the blanks type questions: 1 each

- a) Is Python a case sensitive language? (T/F)
- b) Which of the string is invalid?
  - (i) `_a = 1`
  - (ii) `__ a = 1`
  - (iii) `_str_ = 1`
  - (iv) None
- c) `power (xy)` can be written as ..... in python.
- d) Floor division can be obtained by ..... Operater.
- e) The output of `>>> "a" + "bc"` is .....
- f) Suppose list is `l = [3, 5, 25, 1, 3]` what is the `min(l)`?
- g) Which is the following is a python tuple?
  - (i) `[1, 2, 3]`
  - (ii) `(1, 2, 3)`
  - (iii) `{1, 2, 3}`
  - (iv) `{ }`
- h) What would be the output of the following code:

```
>>> t = (1, 2, 4, 3)
>>> t [1 : -1]
```
- i) `>>> d = {"Ram" : 10, "Gopal" : 12}`

```
>>> a ["Ram"]
```

What would be the output of above code?

j) Which operator overloads '=' operator :

- (i) - eq - ()
- (ii) - eq ()
- (iii) - equ ()
- (iv) none

k) What is the output of following code snippet

```
>>> a = 0.6
>>> b = 2
>>> print a//b
```

l) Output of print (chr(ord('b')+1)) is .....

2. Attempt any four of the following: **(short answer type questions)**

3 each

- a) What are various applications of Python?
- b) Explain Python Virtual Machine?
- c) Explain arithmetic operator in python with example.
- d) Write a function to accept 'n' number and find the average of these numbers.
- e) Explain Python Interpreter as a calculator.

***Section-B***  
***(Long Answer type question)***

3. Attempt any two questions of the following:

***6 each***

- a) Explain various data types in Python with appropriate examples.
- b) Consider the following exponential series

$$e^x = 1 + \frac{x}{1!} + \frac{x^2}{2!} + \frac{x^3}{3!} + \dots$$

WAP in Python to evaluate it.

- c) WAP in Python to sort the elements in an array/list using selection sort.

4. Attempt any two questions of the following:

**6 each**

- a) WAP in Python to show the usage of loop to retrieve elements of a list.
- b) WAP to create a queue class using list method. Add and delete elements in this queue.
- c) WAP in Python to create, add elements at end in link list using classes.

5. Attempt any two questions of the following:

**6 each**

- a) WAP to take input of 10 students detail and store them in a file. WAP to display those names from file ("student.txt) which has 'a' in their name.
- b) Write short note on any two :
  - (i) Passing HTML using regular expression
  - (ii) Constructors in Python
  - (iii) URLLIB
- c) Write a program for infix to postfix conversion using stack in Python.