

No. of Printed Pages : 04

Following Paper ID and Roll No. to be filled in your Answer Book.

PAPER ID : 41115Roll
No.

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BCA Examination 2023-24**(Even Semester)****BASICS OF PYTHON PROGRAMMING****Time : Three Hours]****[Maximum Marks : 60****Note :-** Attempt all questions.**SECTION - A**1. Attempt all parts of the following : $8 \times 1 = 8$

- (a) Define python tokens with its type.
- (b) Write one difference between python 2 and python 3.
- (c) What are the different parameters a range () function can take?
- (d) What is user defined function? Give syntax of a user defined function.

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- ✓(a) What is difference between `isalnum()` and `isalpha()` string function?
- ✓(b) Describe negative test indices used for accessing list elements.
- ✓(c) How will be you create a string using constructors of the `str` class?
- ✓(d) Define python dictionary.

SECTION - B

2. Attempt any two parts of the following : $2 \times 6 = 12$

- ✓(a) Describe different loop statement in python also describe `continue`, `break` and `pass` keywords use in loop.
- ✓(b) Write a program to display the number of a series 1, 4, 9, 16, 25,n by using for loop.
- (c) What is meant by immutable string? What is the use of slicing operator in string?
- ✓(d) Differentiate between set and dictionary with suitable example.

SECTION - C

Note :- Attempt all questions. Attempt any two parts from each questions. $8 \times 5 = 40$

3. (a) Write a program to read a 4-digit number from user and calculate the sum of its digits.
- ✓(b) What are operators in python? What are the use of operator precedence in evaluating expressions?
- ✓(c) State the differences between interactive and scripting mode of python.
4. (a) Write a program to input year and check if it is a leap year.
- ✓(b) Define module. Illustrate the use of `math` module with suitable example.
- ✓(c) What are arguments? How are arguments passed to a function?
5. ✓(a) What is a string? Explain slice operation with example. *string*
- ✓(b) Write a function that finds the number of occurrences of a specified character in a string.

- ✓(c) How can all the elements of a string be traversed using the ~~while~~ loop?
6. ✓(a) How is list created? Explain different ways to create a list with suitable example.
- (b) Differentiate between pop () and remove () method of list with example.
- ✓(c) Create a list containing three elements and then create a tuple from that list.
