

BCA-3001

B. C. A. (Third Semester) EXAMINATION, 2022-23

Paper First

PYTHON PROGRAMMING

Time : Two Hours] [Maximum Marks : 75

Note : This paper consists of three Sections A, B and C. Carefully read the instructions of each Section in solving the question paper. Candidates have to write their answers in the given answer-copy only. No separate answer-copy (B Copy) will be provided.

Section—A

(Short Answer Type Questions)

Note : All questions are compulsory. Answer the following questions as short answer type questions. Each question carries 5 marks.

1. (A) Briefly explain about Python IDLE.

- (B) Explain about Logical operator and Boolean expression.
- (C) Write a program to check a given number is prime or not. Number is given by user.
- (D) Write a program to print Armstrong numbers from 100 to 200.
- (E) Write the difference between List and Tuple.
- (F) What is module and package in python ?
- (G) What is generator in Python ? Explain with example.
- (H) Why do we need a date class in python ?
- (I) How can you raise an exception in python ? Explain with example.

Section—B

(Long Answer Type Questions)

Note : This section contains four questions from which *one* question is to be answered as long question. Each question carries 15 marks.

2. What is Python programming cycle ? Mention what are the rules for local and global variable in python. How can you share global variables across modules ?

Or

3. Explain the need for **continue**, **break** and **pass** statements. Write a program in python where these three statements are implemented.

Or

4. What is dictionary in python ? Write a Python program to convert a given dictionary into a list of lists.

Or

5. Explain about string data type in python. What is slicing and indexing ? Explain about negative indexing. Give *four* examples of slicing and indexing with negative indexing.

Section—C

(Long Answer Type Questions)

Note : This section contains four questions from which *one* question is to be answered as long question. Each question carries 15 marks.

6. Explain about functions in python. Write a Python program using functions to find the roots of a quadratic equation.

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Or

7. What is lambda function? Explain the features of lambda function. Write a Python program to calculate the average value of the numbers in a given tuple of tuples using lambda.

Or

8. What is time module ? Explain *five* functions of time module with example. Write a Python program to subtract five days from current date.

Or

9. What is exception ? Explain about try, except, else and finally blocks used in exception handling. Write a user defined exception using exception class.