B.Sc. 3rd Semester (Honours) Examination, 2023-24

COMPUTER SCIENCE

Course ID : 31515   **Course Code : SH-CSC-305/SEC-1**

Course Title : Programming in Python

[Syllabus 2017-18 & 2022-23]

Time : 1 Hour 15 Minutes   Full Marks : 25

The figures in the right margin indicate marks.

Candidates are required to answer in their own words as far as practicable.

UNIT-I

1.   Answer *any five* from the following questions:

$5 \times 1 = 5$

a)   What is token? Give some example.

b)   Evaluate the expression: 6*3+4**2//5-8.

c)   What do you mean by debugging in programming?

d)   Why python is interpreted language?

e)   Why python is dynamic typed language?

f)   What is pass in python?

g)   What are modules and packages in python?

h)   Can we access a key using its value of dictionary data type?

UNIT-II

2. Answer *any two* from the following questions:

$2 \times 5 = 10$

a) Write a python program to check whether a given number comes under the given series (1,3,5,7,11,13,17,19,23) or not.

b) Explain break and continue statement in python with proper example.

c) Write an algorithm that finds the reverse of a given number. (Do not write in python code)

UNIT-III

3. Answer *any one* from the following questions:

$1 \times 10 = 10$

a) Explain 5 string function or method in python. What are the membership operators available in python? Explain functionalities of them with example. 5+5

b) What is default argument? Give example. Write Python program to find number of words those are starting with letter 'a' in a given string.

4+6

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305/Comp.Sc(N&O) (4)

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BANKURA SAMMILANI COLLEGE
Dept. Of Computer Science
Internal assessment Examination- 2023
Sem: III (Hons.)   Paper: SEC-I

Full marks: 5

Time: 30 min

Answer any Five questions:

5*1=5

1. What is the difference between list and tuples in Python?
2. What are the common built-in data types in Python?
3. What is slicing in Python?
4. Is python case sensitive?
5. What is the difference between Python Arrays and lists?
6. What is the use of range() function?
7. How do you write comments in python?
8. What is a dictionary in Python?

COMPUTER SCIENCE

Course ID : 31525   Course Code : SH-CSC-305/SEC-1

Course Title : Programming in Python (Practical)

[Syllabus 2017-18 & 2022-23]

Time : 2 Hours   Full Marks : 15

The figures in the right margin indicate marks.

Candidates are required to answer in their own words as far as practicable.

[Problem = 10, LNB + Viva voce = 05]

Answer any **one** of the following questions: 10×1=10

1. Write a python program that will check a given string having at least 5 vowel characters.

2. Write a python program to multiply two matrix.

3. Write a program that takes a positive integer n and then produces n lines of output shown as follows.

   For example enter a size:

   ```
   *
   *   *
   *     *
   *       *
   * * * * *
   ```

4. Write a function that takes an integer n as input and calculates the value of $1 - 1/1! + 1/2! - 1/3! + 1/n!$.

5. Write a program to calculate the GCD and LCM of two numbers.

6. Write a python code that will calculate permutation value of P(n,x). where n and x are two user input number.

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