

G-3/326/21

Roll No.....

III Semester Examination, April-2021

M.Sc.

INFORMATION TECHNOLOGY

Paper II

(Python Programming Language)

Time : 3 Hours]

[Maximum Marks : 100

Note : All questions are compulsory. Question Paper comprises of 3 sections. **Section A** is objective type/Multiple Choice questions with no internal choice. **Section B** is short answer type with internal choice. **Section C** is long answer type with internal choice.

SECTION 'A'

(Objective Type Questions)

Choose the correct answer :

1 × 10 = 10

1. Who developed the Python language ?

- (a) Zim. Den (b) Guido Van Rossum
(c) Niene Stom (d) Wick Van Rossum

2. Which of the following is not a Keyword ?

- (a) eval (b) assert
(c) nonlocal (d) pass

3. What will be the value of x in the following Python expression ?

$x = \text{int}(43.55 + 2/2)$

- (a) 43 (b) 44
(c) 22 (d) 23

P.T.O.

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4. What will be the output of following code ?

```
x = 1
while True :
    if x % 5 == 0 :
        break
    print (x)
    x += 1
```

- (a) error (b) 21
(c) 031 (d) none of these
5. Which of the following operators has its associativity from right to left ?

- (a) + (b) //
(c) % (d) **

6. What will be the output of the following Python statement ?

```
>>> "a" + "bc"
```

- (a) a (b) bc
(c) bca (d) abc
7. Which of the following commands will create a list ?
- (a) list 1 = list () (b) list 1 = []
(c) List 1 = list ([1, 2, 3])(d) all of the mentioned
8. What is the length of sys.argv ?
- (a) number of arguments
(b) number of arguments + 1

[5]

3. Write Python program that accepts a sentence and calculate the number of words, digits, uppercase letters and lowercase letters.

Or

What are the basic list operations that can be performed in Python ? Explain each operation with its syntax and example.

4. What is built-in function that Python uses to iterate over a number sequence ? Explain with example.

Or

Briefly explain about fruitful and void functions with suitable example.

5. Explain in detail about Python files, its types, functions and operations that can be performed on files with example.

Or

Explain inheritance class with suitable example.

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[3]

- (c) number of arguments – 1
- (d) none of the mentioned
9. Which of the following is not a Python's predefined data type ?
- (a) Tuple (b) Class
- (c) List (d) Dictionary
10. How are keywords arguments specified in the function heading ?
- (a) one star followed by a valid identifier
- (b) one underscore followed by a valid identifier
- (c) two star followed by a valid identifier
- (d) two underscore followed by a valid identifier

SECTION 'B'
(Short Answer Type Questions)

6 × 5 = 30

Note : Answer the following questions in 250 words.

1. Explain Idle user interface in python ?

Or

Discuss order of expression with suitable example.

2. Write a Python program to compute the factorial of a given number using recursion.

Or

Differentiate between for and while looping statement with example.

3. Write a Python program to calculate the mean of the number of the tuple.

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Or

Explain values and items method used in dictionary with example.

4. Write a Python program to calculate factorial of a given number using recursion function.

Or

What is function ? Mention the type of function and their use in Python.

5. Write Python program to read and write file.

Or

Explain about the different types of exceptions in Python.

SECTION 'C'
(Long Answer Type Questions)

12 × 5 = 60

Note : Answer the following questions in 500 words.

1. Write a Python program to reverse a number and also find the sum of digits in the reversed number. Prompt the user for input.

Or

What is operator ? Explain logical and identity operator in Python with example.

2. Mention the advantages of continue statement. Write a program to compute only even numbers sum within the given natural number using continue statement.

Or

What is string ? Discuss the string handling methods in Python with example.

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