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MST-024

**M. SC. (APPLIED STATISTICS)
(MSCAST)**

**Term-End Examination
December, 2025**

MST-024 : DATA ANALYSIS WITH PYTHON

Time : 2 Hours

Maximum Marks : 25

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- Note :** (i) *Question No. 1 is compulsory.*
(ii) *Attempt any **two** questions out of the remaining question nos. 2 to 4.*
(iii) *Use of scientific (non-programmable) calculator is allowed.*
(iv) *Symbols have their usual meanings.*
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1. Answer the following :
- (a) Write the output of the following Python code : 1
- a = 10**
- b = 20**

```
if a >= b :  
    print(a+b)  
else :  
    print(a*10)
```

- (b) Find and correct the error in the following code : 1
- ```
numbers = (1, 2, 3)
numbers.append(4)
print(numbers)
```
- (c) Write a user-defined function in Python that takes two arguments, multiplies them and returns the result. 3
2. (a) Write a brief note on an IDLE editor for Python. 3
- (b) Discuss the various types of operators with examples. 7
3. (a) Illustrate the concept of 'list slicing' with examples. 3
- (b) What are the components of a built-in function ? 7

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4. (a) What is **NumPy** and why is it important in Python ? 3
- (b) Create a 2-dimensional **NumPy** array. 2
- (c) What is the use of **reshape( )** function in **NumPy** ? Give an example. 2
- (d) Shape and dimension of an array formed using **NumPy** ? Explain an example. 3

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