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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**

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**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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