

RAN-2411001002011001
F.Y.B.Sc. (Computer Science) (Sem. II) Examination April - 2026
Major-1-CS-205 : Python Programming (Th)
[Total Marks: 25
સૂચના : / Instructions

- (1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the above details on your answer book.

Seat No.:

Student's Signature
Q. 1 Answer the following MCQ.
(05)

- What does the term "central tendency" refer to in statistics?
 - Measures of spread like variance
 - Measures like mean, median, and mode
 - Data visualization techniques
 - Correlation coefficients
- Which DataFrame method returns the first n rows?
 - df.tail()
 - df.loc()
 - df.head()
 - df.describe()
- Which function in the csv module is used to write multiple rows at once?
 - writer()
 - reader()
 - writerows()
 - DictReader()
- Which function is used to create subplots in matplotlib?
 - plot()
 - subplot()
 - legend()
 - range()
- What does PVM stand for in the context of Python program execution?
 - Python Virtual Machine
 - Program Variable Manager
 - Portable Virtual Module
 - Python Value Mapper

Q. 2 A) Explain indexing and slicing mechanism of string using example.
(04)
OR
Q. 2 A) Discuss the different types of loops in Python (for, while) with examples.
(04)
Q. 2 B) What is Python list? Provide examples to perform various operations on them.
(04)
OR
Q. 2 B) How Dictionary is created? Explain Syntax and Example of it.
(04)

Q. 3 A) Explain function definition, calling, and argument passing with an example. **(04)**

OR

Q. 3 A) Define User Define Module. How to create and use module explain giving example. **(04)**

Q. 3 B) Discuss different operations that can be performed on a Pandas DataFrame, including slicing, merging, and changing column headers. **(04)**

OR

Q. 3 B) Explain how NumPy is used for array manipulation. Provide examples for slicing and reshaping arrays. **(04)**

Q. 4 A) Describe the process of reading and writing CSV files in Python. Provide code examples. **(04)**

OR

Q. 4 A) How do you create a line plot using the matplotlib.pyplot library? **(04)**
