



RAN-2411001002011001/2411001002010011

F. Y. B. Sc. Computer Science (NCF-NEP) Sem.-II

Examination October - 2025

Major-I-CS-205-Python Programming (TH)

Time: 2 Hours]

[Total Marks: 25

સૂચના : / Instructions

(૧)

નીચે દર્શાવેલ નિશાનીવાળી વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the details of signs on your answer book

Name of the Examination:

F. Y. B. Sc. Computer Science (NCF-NEP) Sem.-II

Name of the Subject :

Major-I-CS-205-Python Programming (TH)

Subject Code No.: 2411001002011001

Seat No.:

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Student's Signature

Q.1. Answer the following MCQ. (Any Five.)

(05)

- In which area is Python commonly used for data visualization?
 - Creating spreadsheets
 - Developing mobile applications
 - Using libraries like Matplotlib and Seaborn
 - Writing system-level code
- Which of the following frameworks is commonly used for web development in Python?

A) Django	B) TensorFlow
C) NumPy	D) OpenCV
- What will be the output of the following code: `d={'a': 1, 'b': 2}; d.pop('a'); print(d)`?

A) {'a':1}	B) {'b':2}
C) {'a':2}	D) {}

4. Which function is used to read a CSV file into a DataFrame in Pandas?
- A) `pd.read_csv()` B) `pd.load_csv()`
C) `pd.import_csv()` D) `pd.open_csv()`
5. Python is often used in which type of development for creating desktop applications?
- A) GUI development using Tkinter
B) Web development using Flask
C) Game development using Pygame
D) All of the above
6. What will be the output of the following code: `s = "Hello"; s[1:4]`?
- A) "Hel" B) "ell"
C) "llo" D) "Hello"
7. What does the `head()` function do in a DataFrame?
- A) Returns the last 5 rows
B) Returns the first 5 rows
C) Returns all rows
D) Returns a summary of the DataFrame

Q.2. Answer the following questions. (08)

- A. Discuss application of Python.
B. Explain features of Python.

OR

- A. Explain indexing and slicing mechanism of string using example.
B. Discuss various operations perform on list.

Q.3. Answer the following questions. (08)

- A. Discuss creation of user define function with syntax and example.
B. List advantages and disadvantages of module.

OR

- A. What is dictionary? Explain dictionary creation and retrieval of its values.
B. Discuss `mean()`, `mode()`, `median()` function.

Q.4. Answer the following questions.

(04)

A. Discuss `copy()`, `shape()`, `reshape()` and `join()` function of NumPy.

OR

A. How do you plot a bar chart using the `matplotlib.pyplot` library? Write the steps and sample code.
