

Seat
No.

Set R

**S.Y. (B.Tech.) (Electronics & Computer Engineering) (Sem - I) (New)
(NEP CBCS) Examination: October/November – 2025
Programming Basics Using Python (CSEMDM-01A)**

Day & Date: Wednesday, 24-12-2025
Time: 03:00 PM To 06:00 PM

Max. Marks: 70

- Instructions:** 1) Q. No. 1 is compulsory. It should be solved in the first 30 minutes in Answer Book Page no 03 (Starting page of the Answer Book). Each question carries one mark.
2) Don't forget to Mention question paper set (P/Q/R/S) on top of page.
3) Figures to the right indicates full marks.
4) Assume suitable data if required.

MCQ/Objective Type Questions

Duration: 30 Minutes

Marks:14

Q.1 Choose the correct Answer.

14

- 1) Which logging level is used to record non-critical information useful for debugging?

- | | |
|----------|-------------|
| a) ERROR | b) CRITICAL |
| c) DEBUG | d) WARNING |

- 2) What does the following code do?

```
import csv

f = open('data.csv', 'w', newline='')

writer = csv.writer(f)

writer.writerow(['Name', 'Age'])

f.close()
```

- | | |
|-----------------------------------|-----------------------------------|
| a) Reads data from a CSV file | b) Writes one row into a CSV file |
| c) Appends a row to existing file | d) Deletes CSV contents |

- 3) Which of the following statements will check if two values are equal in a unittest?

- | | |
|---------------------------|---------------------------------|
| a) self.assertSame(a, b) | b) self.checkEqual(a, b) |
| c) self.assertEqual(a, b) | d) self.assertEquals(a, b, msg) |

- 4) Which module provides debugging capabilities in Python?

- | | |
|------------|------------|
| a) trace | b) pdb |
| c) debugpy | d) inspect |

- 5) What will be the output of the following code?

```
print (type (5 / 2))
```

 - a) <class 'int'>
 - b) <class 'float'>
 - c) <class 'double'>
 - d) <class 'long'>
- 6) Which of the following is a valid identifier in Python?
 - a) 2variable
 - b) my-variable
 - c) _value
 - d) class
- 7) What is the output of the following code?

```
for i in range(2, 7, 2):  
    print(i, end=' ')
```

 - a) 2 3 4 5 6
 - b) 2 4 6
 - c) 2 5 8
 - d) 2 6
- 8) What type of inheritance is used when a class inherits from more than one superclass?
 - a) Single inheritance
 - b) Hierarchical inheritance
 - c) Multiple inheritance
 - d) Multilevel inheritance
- 9) Which function is used to return the current local date and time?
 - a) datetime.today()
 - b) datetime.date()
 - c) datetime.now()
 - d) time.localtime()
- 10) Which function from the calendar module checks if a year is a leap year?
 - a) isLeapYear()
 - b) leap()
 - c) isleap()
 - d) leapyear()
- 11) Which function in the unittest module is used to check if two values are equal?
 - a) assert()
 - b) assertEquals()
 - c) checkEqual()
 - d) testEqual()

12) What is the output of the following code?

```
class A:
    def show(self):
        print("A")
class B(A):
    def show(self):
        print("B")
obj = B()
obj.show()
```

- | | |
|-------|----------|
| a) A | b) B |
| c) AB | d) Error |

13) Which built-in function returns the class name of an object?

- | | |
|-----------|--------------|
| a) type() | b) classof() |
| c) id() | d) dir() |

14) What will this code print?

```
for ch in "PYTHON":
    if ch == "H":
        break
    print(ch, end="")
```

- | | |
|---------|---------|
| a) PY | b) PYT |
| c) PYTH | d) None |

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Programming Basics Using Python (CSEMDM-01A)**

Day & Date: Wednesday, 24-12-2025

Max. Marks: 56

Time: 03:00 PM To 06:00 PM

- Instructions:** 1) All questions are compulsory.
2) Figures to the right indicate full marks.

Section – I

Q.2 Attempt the following. (Any Three) 16

- Explain Python's basic data types with examples.
- Write a program to find whether a number is even or odd.
- Write a python program to check whether a given string is palindrome.
- Explain the features of Python that make it popular for programming.
- What is exceptional handling in python? How it is implemented using try, except and finally block?

Q.3 Attempt the following. (Any Two) 12

- Illustrate following control structures and write syntax for each type of control structure.
 - Decision making statements
 - Iterative statements (Loop control statements)
 - Transfer statements
- Write a program that handles ZeroDivisionError using exception handling.
- Write the program for following.
 - Single level inheritance
 - Multilevel Inheritance
 - Multiple Inheritance

Section – II

Q.4 Attempt the following. (Any Three) 16

- Write a program to print the calendar of a given month and year.
- What is unit testing? Why is it important?
- Write a NumPy program to create an array and perform following arithmetic operations.
 - Addition
 - Subtraction
 - Multiplication
- Write a program to generate 5 random numbers between 10 and 100.
- What is the logging module? What are its log levels?

Attempt the following. (Any Two)

- a) Differentiate between shallow copy and deep copy with examples.
- b) Define data persistence and write a program to read OR Write data from csv file.
- c) Explain basic GUI components such as Label, Button, and Entry.