

24U166

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Name :

Reg. No :

FIRST SEMESTER UG DEGREE EXAMINATION, NOVEMBER 2024

(FYUGP)

CC24U CSC1 MN102 - PYTHON PROGRAMMING

(B.Sc. Computer Science - Minor Course)

(2024 Admission - Regular)

Time: 2.0 Hours

Maximum: 70 Marks

Credit: 4

Part A (Short answer questions)

Answer *all* questions. Each question carries 3 marks.

1. Explain the purpose of comments in Python and how they are written? [Level:2] [CO1]
2. Explain how to display variables and text together using the print() function in Python. [Level:2] [CO1, CO2]
3. Explain the difference between an expression and a statement in programming with examples. [Level:2] [CO1]
4. Use the continue statement to modify a loop that processes a list of numbers, so that it skips any negative numbers and only performs operations on non-negative values. [Level:3] [CO2]
5. Implement a program that checks if a number is greater than 10. [Level:3] [CO2]
6. Provide the difference between indexing and slicing in lists. [Level:3] [CO3]
7. Provide an example for union and intersection operations in sets. [Level:3] [CO3]
8. Provide an example how the get() method works in a dictionary. [Level:3] [CO3]
9. Determine how the random.randint(a, b) function works. [Level:3] [CO4]
10. Determine how a recursive function stop itself from calling infinitely. [Level:3] [CO4]

(Ceiling: 24 Marks)

Part B (Paragraph questions/Problem)

Answer *all* questions. Each question carries 6 marks.

11. Implement a Python program that checks if a given string is a palindrome (reads the same forward and backward) and prints an appropriate message. [Level:3] [CO3]
12. Demonstrate how to call a user-defined function by writing a suitable program. [Level:3] [CO4]

13. Apply the concept of function arguments and return statements for explaining how you would define a Python function using suitable program. [Level:3] [CO4]
14. Use datetime library to transform a string into a datetime. [Level:3] [CO4]
15. Classify the types of operators in Python and explain the role of operands in mathematical expressions. [Level:2] [CO1]
16. Classify the various Python IDEs available. [Level:2] [CO1]
17. Classify the different types of type conversions in Python and give examples of when you would use each. [Level:2] [CO1]
18. Apply a for loop to write a Python program that print sum and reverse of a number. [Level:3] [CO2]

(Ceiling: 36 Marks)

Part C (Essay questions)

Answer any *one* question. The question carries 10 marks.

19. Analyze the control flow differences between a simple while loop and a while loop with an else block using suitable program. [Level:4] [CO2]
20. Analyze the immutability of tuples in Python and compare it with the mutability. [Level:4] [CO3]

(1 × 10 = 10 Marks)
