BCA(SEC)
(NEP)
B.Sc. Second Semester End Examination - 2024
PAPER - SEC-02T

Full Marks : 20   *Time : 1 hour*

The figures in the right-hand margin indicate marks.

Candidates are required to give their answers in their own words as far as practicable.

Illustrate the answers wherever necessary.

Group - A

1. **Answer any Two questions :**   2×2=4

   a) Describe bitwise operations in Python with example.

   b) Consider two values x=10, y=5. Write a code in Python to swap these two variables without using third variable or temporary variable.

   c) What is a set in Python? Merge these two sets – set1={"a", "b", "c"} and set2 = {1,2,3} to form a single set.

Group - B

2. **Answer any Four questions :**   4×4=16

   a) Differntiate between list, dictionary and tuple with suitable examples of each.

   b) Write a Python program to print the following pattern. Number of lines should be taken as input from user.

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   c) What is NumPy in Python used for? Create and display a 2-D and 3-D array using NumPy.   1+3

   d) Write a Python program to count the number of occurrences of a certain character in a string. Both the string and the character must be taken as input from the user.   4

   e) Differentiate between slice() and strip() functions in Python with suitable examples of each.   4

   f) Write a Python proram to display a series of Fibonacci numbers between 0 and n using recursion where n is an integer number taken as input from the user.   4