1 Hours Paper 4:00 PM-5:00 PM

Python - Daily Test 7 - 2-Feb-17 (Loops or Iterative or Repetitive Statements)

1.   Write about for loops statements in Python, along with sample programs. The sample program has to cover the following:

*   The "for" loop (with integer values) to cover range function with 1 argument, 2 arguments and 3 arguments. To cover from minimum to maximum and maximum to minimum values i.e., step with +ve and -ve values.

*   The "for" loop traversal of the list consisting of integer values

*   The "for" loop traversal of the list consisting of float values

*   The "for" loop traversal of the tuple consisting of integer and float values

*   The "for" loop traversal of a character in a string

*   The "for" loop traversal of the list consisting of strings

*   The "for" loop traversal of the tuple consisting of strings

*   The "for" loop traversal of the dictionary consisting of key/value pairs of names/employee id's

NOTE: The output of 1 item should be only in 1 line (so, 6 items here). So, put proper print statements.

2.   Brief about while loop. Write the program in Python to perform the following (using while loop):

*   To accept user input (integers only) until user enters zero (zero is end of input). Sum all the user entered numbers and display the sum.

*   To accept user input (strings only) until user enters "end" or "END" (signifying the end of input). Append all the user entered strings and display the final string.

NOTE: Should not use condition as True (infinite loop), use proper condition only.

3.   Write a program in Python to check whether user entered number is Armstrong number or not. User can enter any digits number i.e., either 1 or 2 or 3 or 4 or so on digits. So, write only generic code.

About Armstrong Number

An n-digit number that is the sum of the nth powers of its digits is called an Armstrong number.

The -digit numbers equal to the sum of th powers of their digits (a finite sequence) are called Armstrong numbers and are given by 1, 2, 3, 4, 5, 6, 7, 8, 9, 153, 370, 371, 407, 1634, 8208, 9474, 54748, ..

An Armstrong number of three digits is an integer such that the sum of the cubes of its digits is equal to the number itself. For example, 371 is an Armstrong number since $3**3 + 7**3 + 1**3 = 371$.

An Armstrong number of four digits is an integer such that the sum of the power of 4 of its digits is equal to the number itself. For example, 1634 is an Armstrong number since $1**4 + 6**4 + 3**4 + 4**4 = 1634$.

4.   Write a program in Python to find smallest factorial number containing given trailing zeros.

Given a number num. The task is to find the smallest number whose factorial contains at least num trailing zeroes.

NOTE: Don't use functions.

Examples:

Input : num = 1

Output : 5

1!, 2!, 3!, 4! does not contain trailing zero.

5! = 120, which contains one trailing zero.

Input : num = 6

Output : 25

25! = 15511210043330985984000000