Lab Assignment
Python Programming (CSEN2153)
3rd Semester, CSE(AIML), HTIK

21st and 22nd August 2024(Gr I and Gr II)

1. Open a existing file and count number of lines and no of characters available in the file.

2. Using some Editor, create a text file (name: cities.txt) containing names of 10 cities viz. Kolkata, Delhi, Mumbai, Chennai, Bengaluru, Patna, Lucknow, Hyderabad, Gandhinagar and Srinagar, one in each line. Now take source file name and destination file name from the user. Use exception handling to report "FileNotFoundError", if any, for the source file. Copy the source text file to the destination.

3. Accept two numbers number1 and number2 from user separated by comma, find out division of two numbers by using try - except block. Handle ZeroDivisionError, SyntaxError if inputs are not separated by comma.

4. Create two user defined exceptions as TooHot and TooCold. Write a python program which will accept temperature from user and display entered temperature if it is within range 20 to 4o degrees and throw TooHot if the temperature exceeds 40 degrees and throw TooCold if the temperature is less than 20 degrees.

5. Write a Python program to first take an integer number (x), where $1 \leq x \leq 255$, from the user by using the prompt "Number of registers in the CPU:". Use try-except block to wait indefinitely until the given input is an integer. Check the validity of the range of the input in a user defined function 'check_range'. Now, call a function 'find_n' to find out a positive number (n) such that 2^n is the least integer greater than or equal to x. Display the value of n with prompt "The number of bits for the Register field in the Instruction format is:"