Number Theory and Cryptography (IT462) Program -2

Write a program that should demonstrate that Lucas Theorem (Primality Test). Use Square-and-Multiply technique where a^x mon n computation involved.

Steps:

a. Consider the run-time input of any size and check whether the given number is positive integer or not, if yes proceed towards computation else terminate the program. In second step, check whether the given number is even or not, if odd then only apply Lucas Theorem the else terminate the program.
b. Print all intermediate results as well as final output on terminal. Further, store all intermediate results as well as final output into an output file.

Sample Text Case:

Input : 112345

Submit program as well as screenshots of the output to it35215b@gmail.com before the deadline. Email Subject should be NTC(IT462)-Lab-Program2

File name of the program : RegisterNo_IT462_P2

(P2 indicates Program Number-2)

File name of the screenshot : RegisterNo_IT462_P2_S1

(S1 indicates screenshot for the first test case, similarly, for other test cases S2, S3, S4, S5)

Date of Laboratory : 2nd August 2019

Dead Line of Submission : 2nd August 2019 (on or before 5:30PM).

Note: Kindly clarify the doubt(s) (if any related to the said program) before commencement of the laboratory.