

# PAKISTAN INSTITUTE OF ENGINEERING AND APPLIED SCIENCES

## DEPARTMENT OF PHYSICS AND APPLIED MATHEMATICS

### ASSIGNMENT # 1, PAM-533, DUE DATE: 14/07/2021

Please submit your portable **.dat**, **.py** and **.sh** files at aibutt@ualberta.ca no later than 13:30

**Problem 1:** A year is a leap year if it is divisible by 4, unless it is divisible by 100 or 400. 1900 and 2000 are not leap years.

1. Make use of built-in data type `int()` and `bool()` and permissible operations to create a basic code in python 3 that accepts one entry from CLI and decides if it is a leap year or not.
2. Create a python 3 code that accepts your day of birth from CLI and generates a data set of 100 years for a century in Gregorian calendar corresponding to your day of birth.
3. Report all the leap years in the century that matches with your day of birth. Automation is essence. Feed the data file in part-2 to the code in part-1 using a bash script.

**Problem 2:** Compose a python 3 program that takes three integers from CLI, uses only built-in functions and returns them in ascending and descending orders.

HAPPY CODING ☺