

## **CENG461 – Assignment 2:**

### **Logic Programming Using Prolog**

Solve the following problems using **Prolog**:

- 1.) Using the Structures *parent(X,Y)*, *male(X)*, and *female(X)*, write a structure that defines *mother(X,Y)*.
- 2.) Using the Structures *parent(X,Y)*, *male(X)*, and *female(X)*, write a structure that defines *sister(X,Y)*.
- 3.) Write a Prolog program to check if a number is prime.
- 4.) Write a Prolog program that succeeds if the intersection of two given list parameters is empty.
- 5.) Write a Prolog program to find the greatest common divisor of two numbers.
- 6.) Write a Prolog program to print Fibonacci series up to the *n*th term