Assignment 1

Course: Master of Computer Application (MCA)

Subject: Discrete Mathematics   Last Date of Submission: 31/01/2021

1. Write a program to implement Binary search (Recursive and Iterative).
2. Write a program to implement tower of Hanoi (Recursive and Iterative).
3. Write a program to generate a Pascal's triangle.
4. Write a program to implement the following laws:
   a. Identity laws
   b. Domination laws
   c. Double negation laws
   d. Demorgan's laws
   e. Associative laws
5. Write a program to implement the tautology, Contradiction/Absurdity and Contingency.
6. Write a program to implement Modus ponens and Modus Tollens.
7. Write a program to implement $\sim\forall x P(x) \equiv \exists x \sim P(x)$.
8. Write a program to find the Union and Intersection of two sets.
9. Write a program to find the power set of the given set.
10. Write a program to find the permutation of the given set.