Course Code: CS-533 P   **Course Title :** Practical based on A1.CS-531-T
Total Credit: 1.5   Marks: 50 (UA: 40 + IA: 10)
Periods: 3 per week (50 Minutes each)

Sample List of Experiments and Tutorials to be carried out based on the course A1.**CS-531-T**.

(**Artificial Intelligence)**

1. Write a prolog program to calculate the sum of two numbers.
2. Write a prolog program to find the maximum of two numbers.
3. Write a prolog program to calculate the factorial of a given number.
4. Write a prolog program to calculate the nth Fibonacci number.
5. Write a prolog program, insertnth(item, n, into_list, result) that asserts that result is the list into_list with item inserted as the n'th element into every list at all levels.
6. Write a Prolog program to remove the Nth item from a list.
7. Write a Prolog program, remove-nth(Before, After) that asserts the After list is the Before list with the removal of every n'th item from every list at all levels.
8. Write a Prolog program to implement append for two lists.
9. Write a Prolog program to implement palindrome(List).
10. Write a Prolog program to implement max(X,Y,Max) so that Max is the greater of two numbers X and Y.
11. Write a program to implement DFS (for 8 puzzle problem or Water Jug problem or any AI search problem)
12. Assume given a set of facts of the form father(name1,name2) (name1 is the father of name2).