



# ARSD College, University of Delhi

## Model Course Handout/Lesson Plan

<b>Course Name : B.Sc. (Hons.) Computer Science(LAB)</b>						
Semester	Course Code	Course Title	Lecture (L)	Tutorial (T)	Practical (P)	Credit (C)
VI	BHCS13	Artificial intelligence Discipline Specific Core Course - (DSC)			4	2
Teacher/Instructor(s)		Dr. Parul Jain				
Session		2021-22				

### Course Description:

- Sessions on Represent knowledge in Prolog and write code for drawing inferences.
- Sessions on Compare strengths and weaknesses of different artificial Intelligence techniques.

### List of Experiments:

Details of the Lab Course		
Session	Name of Experiment	Contact Hours
1	Write a prolog program to calculate the sum of two numbers.	2
2	Write a Prolog program to implement max(X, Y, M) so that M is the maximum of two numbers X and Y.	2
3	Write a program in PROLOG to implement factorial (N, F) where F represents the factorial of a number N.	2
4	Write a program in PROLOG to implement generate_fib(N,T) where T represents the Nth term of the fibonacci series.	2
5	Write a Prolog program to implement GCD of two numbers.	2
6	Write a Prolog program to implement power (Num,Pow, Ans) : where Num is raised to the power Pow to get Ans.	2
7	Prolog program to implement multi (N1, N2, R) : where N1 and N2 denotes the numbers to be multiplied and R represents the result.	4
8	Write a Prolog program to implement memb(X, L): to check whether X is a member of L or not.	4
9	Write a Prolog program to implement conc (L1, L2, L3) where L2 is the list to be appended with L1 to get the resulted list L3.	4
10	Write a Prolog program to implement reverse (L, R) where List L is original and List R is reversed list.	4
11	Write a program in PROLOG to implement palindrome (L) which checks whether a list L is a palindrome or not.	4
12	Write a Prolog program to implement sumlist(L, S) so that S is the sum of a given list L.	4
13	Write a Prolog program to implement two predicates evenlength(List) and	4

	oddeven(List) so that they are true if their argument is a list of even or odd length respectively.	
14	Write a Prolog program to implement nth_element (N, L, X) where N is the desired position, L is a list and X represents the Nth element of L.	4
15	Write a Prolog program to implement maxlist(L, M) so that M is the maximum number in the list.	4
16	Write a prolog program to implement insert_nth (I, N, L, R) that inserts an item I into Nth position of list L to generate a list R.	4
17	Write a Prolog program to implement delete_nth (N, L, R) that removes the element on Nth position from a list L to generate a list R.	4
18	Write a program in PROLOG to implement merge (L1, L2, L3) where L1 is first ordered list and L2 is second ordered list and L3 represents the merged list.	4
	<b>Total</b>	<b>60</b>

**Evaluation Scheme:**

No.	Component	Duration	Marks
1.	Internal Assessment		25
	• Quiz		
	• Class Test		
	• Attendance		
	• Assignment		
2.	End Semester Examination	4 hrs	50

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