CS F214
Logic in CS
BITS Pilani, Hyderabad Campus
Assignment -2
Due Date : 10th November 2016 (by Midnight)
Total Marks: 15 (weightage : 5%)

Objective: In this assignment, you have to implement the program to convert any given propositional logic formula into its CNF. The conversion algorithm is described in the book very nicely. **This assignment must be added to your assignment 1 code** and hence use the same symbols for the operators used in assignment 1.

Task 1:
Write functions to **convert any propositional logic formula into CNF.** **[5]**

Task 2:
Write a function to check the validity of this propositional logic formula. **[4]**

Task 3:
Write a function to make a parse tree of both the original formula and its CNF form. Compare the size of the two parse trees and report the result. **[3]**

Task 4:
Make sure that your code is well indented and commented. Document your assignment as HTML pages (pay attention to the aesthetics). **[3]**

General Instructions:

1. This assignment will be done in groups of max three students.
2. **Code must be written in C or C++ only.**
3. You need to mail your working code and HTML pages in zip file to **rayt@hyderabad.bits-pilani.ac.in** by the deadline. Only one mail per group should be sent.
4. The name of the file should be **id1_LOGIC_A2.zip**, where id1 refers to the BITS ID of the sender.
5. **You can discuss with your friends but refrain from copying the code and submitting. Also please do not use code downloaded from internet. Such codes will receive 0 credits.**
6. You have to demo the code to the instructor on a scheduled date and timing after submission. **It is important to attend the demo, as absence from demo will amount to no credit for the assignment.**