# Department of Humanities and Social Sciences, IIT Delhi

Venue: VI 301
Maximum Marks:20

**2nd Minor Examination**

October 06, 2013
11.00 - 12.00 Hrs.

## HUL 251 Introduction to Logic

Answer the following questions.
With regard to question no. 1, note that there are no marks for steps.

1. Prove the following argument using natural deduction method without invoking either the rule of conditional proof or the rule of indirect proof:

   1. $K \supset ((L \vee M) \supset R)$
   2. $(R \vee S) \supset T$ $\quad /\therefore K \supset (M \supset T)$

10

2. State what is meant by completeness of tree method and prove that the tree method as a decision procedure is complete.

10

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