

Dear Student,

In Boolean logic, a *literal* is a Boolean variable or a negated Boolean variable, as in x or \bar{x} . A *clause* is several literals connected with \vee s, as in $(x_1 \vee \bar{x}_2 \vee \bar{x}_3 \vee x_4)$. A Boolean formula is in *conjunctive normal form*, called a *cnf-formula*, if it comprises several clauses connected with \wedge s. Following is an example cnf-formula.

$$(x_1 \vee \bar{x}_2 \vee \bar{x}_3 \vee x_4) \wedge (x_3 \vee \bar{x}_5 \vee x_6) \wedge (x_3 \vee \bar{x}_6)$$

Ref: Introduction to Theory of Computation by Michael Sipser, page 278.