# University of California at Berkeley <br> College of Engineering <br> Department of Electrical Engineering and Computer Science 

EECS150, Spring 2010
Quiz 10: April $9^{t h}$

Consider the functions F and G:

$$
\begin{gathered}
F(a, b, c, d)=\bar{a} \bar{b} \bar{c} \bar{d}+a \bar{c} \bar{c} \bar{d}+\bar{a} \bar{b} c \bar{d}+a \bar{b} c \bar{d}+\bar{a} b \bar{c} d+a b \bar{c} d+\bar{a} b c d+a b c d \\
G(a, b, c, d, e, f)=F(a, b, c, d)(F(a, b, c, d)+a b e f)
\end{gathered}
$$

1. Express $F$ in as few literals as possible.
2. Express $G$ in as few literals as possible.
