

KING FAHD UNIVERSITY OF PETROLEUM & MINERALS
Department of Electrical Engineering

EE200 Digital Logic Circuit Design	Quiz #6 (26/11/2005)	Section: 03
Student's Name :		I.D.# :

Design a combinational circuit that produces the 1's complement of a two bit number $[xy]$ if an input $[z]$ is zero. If $[z]$ is one the output is the 2's complement.

Answer the following:

The number of inputs $n =$

The number of outputs $m =$

Use letters A,B,C,..... etc. for the outputs.

Obtain the truth table, simplify the output functions using K-map, and draw the logic circuit using AND, OR, and Inverter gates.

Do not write below this line