

Ministry of Higher Education

King Jahd University of Petroleum & Minerals

Electrical Engineering Department



وزارة التعنيم المنابي جامعة الملك فهد للبنروك و المعادن قسم الهندسة الكهربائية

Name:		
Student ID:	Section: 1	Quiz: 1

For the shown SCR circuit: Assume the supply is 120 V rms, $I_{GT}=20$ mA, and $R_1=3~k\Omega$.

- a) Design the circuit to have a firing angle of 45°.
- b) What is the minimum and maximum firing angle that could be achieved by varying R_2 ?

