

King Fahd University of Petroleum & Minerals  
Department of Electrical Engineering

Quiz #1

EE460 Power Electronics

October 2007

Name: \_\_\_\_\_ ID: \_\_\_\_\_ Grade: \_\_\_\_\_

Bridge rectifier has a purely resistive load  $R$ . The load is 1 kW. Assume the voltage at the secondary transformer  $V_s = 120$  V (rms). Determine:

(a) the value of the resistance  $R$ , (b) the rms current diode, (c) the average diode current, (d) PIV of the diode  $D_4$ , and (e) TUF, (f) draw the voltage waveform across  $D_2$ .

