

Phy 410
Quiz #3, Feb 5, 2010

A system has 4 microstates with energies 0, 0, ϵ , 2ϵ respectively.

- a) What is the partition function at temperature τ ? (3 points)**
- b) What is the average energy of the system as function of τ ? (3 points)**
- c) What is the average energy as $\tau \rightarrow 0$? (2 points)**
- d) What is the average energy as $\tau \rightarrow \infty$? (2 points)**