

AST 300B – Spring 2017

In-class/Take-home Problems Due: Wednesday Mar. 8

30. (a) On the energy level diagram for hydrogen below, indicate all electric dipole allowed transitions.

(b) An electron recombines into the 5g level of Hydrogen. What is the probability that a $H\alpha$ photon will be emitted in the radiative cascade to the ground state?

31. An electron recombines into a 3p state of Hydrogen. What are the probabilities for the possible radiative decays from this level?

