

PHYS 4310, Quiz 6 December 7, 2015

1. You are told that an hydrogenic electron is in the state $\psi_{3,1,-1}$.
 - (a). You make a measurement of L_z on this state. What do you get?

 - (b). What is the total angular momentum, L^2 ?

2. What are the possible states that a spin-3/2 particle has?

3. Starting at $B = 0$, sketch how the two spin states, $|\uparrow\rangle$ and $|\downarrow\rangle$, of a spin-1/2 particle evolve with (positive) B .