1. 3.4, Pierret

2. 3.7, Pierret

3. 3.9, Pierret (No need to quote reference if you can find another way to show that this is the case.) Note that these relationships are valid only in the immediate vicinity of the band minimum, where the bands are parabolic.

4. 4.1, Pierret

5. 4.3, Pierret

6. 4.6, Pierret

7. a. 4.9, Pierret.
   b. Put in numbers for silicon at room temperature.

8. 4.11, Pierret, diagrams a and f.

9. 4.12, Pierret