Answer the **four multiple choice questions** below by choosing the **one, best answer**. Then ask a question about the lecture.

1) **What is the probability that a state at** $E = E_F$ **is occupied?**
   - a) 0.0
   - b) 0.25
   - c) 0.50
   - d) 1.0
   - e) 1.5

2) **What is the probability that a state at** $E << E_F$ **is occupied?**
   - a) 0.1
   - b) very, very small, but not exactly zero
   - c) 0.5
   - d) 1.0
   - e) very, very close to one but not exactly one.

3) **What is the probability that a state at** $E >> E_F$ **is occupied?**
   - a) 0.1
   - b) very, very small, but not exactly zero
   - c) 0.5
   - d) 1.0
   - e) very, very close to one but not exactly one.

4) **What is the Maxwell-Boltzmann (or non-degenerate) approximation to the Fermi function for** $E >> E_F$ **?**
   - a) $e^{(E-E_F)/k_B T}$
   - b) $e^{-(E-E_F)/k_B T}$
   - c) $e^{(E-E_F)/k_B T} + 1$
   - d) $e^{(E-E_F)/k_B T} - 1$
   - e) $e^{(E-F)/k_B T} - 1$

Continued on next page.
5) What question(s) do you have about this lecture?

Turn in to Ms. Wanda Dallinger, EE-326 before 4:30 PM Friday.