Fundamentals of Nanotransistors
L3.3 Quiz
ANSWERS
Mark Lundstrom
Purdue University

Lecture 3.3: More on Landauer

1) The quantity, $\left(-\partial f_0 / \partial E\right)$, is an important one. What is it?

   a) The Fermi function.
   b) The Boltzmann approximation to the Fermi function.
   c) The differential conductivity.
   d) The Fermi window.
   e) The quantum of conductance.

2) The quantity, $\left(2q^2 / h\right)$, is important. What is it?

   a) The Fermi function.
   b) The Boltzmann approximation to the Fermi function.
   c) The differential conductivity.
   d) The Fermi window.
   e) The quantum of conductance.

3) What is the quantity, $\left(2q^2 / h\right)\left\langle\left\langle\mathcal{T}\right\rangle\right\rangle\left\langle M\right\rangle$?

   a) The ballistic conductance.
   b) The diffusive conductance.
   c) The conductance.
   d) The ballistic high-bias (on) current.
   e) The high-bias (on) current.