Fundamentals of Nanoelectronics, Basic Concepts Unit 3

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L3.7 Quiz

Answers

3.7. Electrostatic Potential

3.7a. On applying a voltage, the change in the electrostatic potential follows the electrochemical potential closely

(a) never

(b) always

(c) only if the medium has a very high density of states

(d) only if the medium has a very low density of states

(e) the two potentials are completely unrelated

3.7b. The slope of the electrostatic potential is not always a good indicator of the local resistance because

(a) it is smeared out by a screening length

(b) it can be non-zero even with no applied voltage

(c) BOTH (a) and (b)

(d) NEITHER (a) or (b)

(e) none of the above, it is always a good indicator