Unit 4
Lecture 4.7 Quiz

1) For block polymers that show lamellar morphologies, the small-angle x-ray scattering pattern shows:
   a. Multiple integer values of the square root of the primary reflection ($q^*$).
   b. Multiple integer values of the primary reflection ($q^*$).
   c. Reflections at the primary reflection ($q^*$) and at $1.73q^*$, $2q^*$, and $2.65q^*$.
   d. A signal reflection.
   e. At least 4 reflections.

2) When confined in block polymer domains, the polythiophene segment of the block polymer:
   a. Does not retain the crystallinity it would have as a homopolymer.
   b. Has a crystalline nature, but has a lower degree of crystallinity than the homopolymer analog.
   c. Has a crystalline nature, and has a higher degree of crystallinity than the homopolymer analog.
   d. Cannot conduct charge
   e. Both (a) and (d)

3) Assuming that a continuous pathway is present for charge transport, confinement of the polythiophene moiety in the block polymer domains decreases the charge mobility of the polymer relative to its performance as a homopolymer.
   a. True
   b. False