

## **NAN 242**

### Midterm 4 - Sample Questions

1. How does a p-n junction solar cell work?
2. Which factors affect the efficiency of a solar cell?
3. Describe one way in which nanoparticles can enhance solar cell efficiency.
4. Why are nanoparticles used in organic solar cells?
5. What is the function of the porous membrane in a battery?
6. Draw the Li-ion battery charge and discharge mechanisms (show the anode, cathode, electrolyte and the separator and the ion and electron flow directions).
7. Why do creating nanostructured anodes improve battery performance?