## Exercise 8.2-1

## **Quick Questions to**

## 8.2 Making Bulk Si Solar Cells

- Here are some quick questions
  - Discuss the basic requirements for mass production of solar cells including technical constraints resulting from economical boundary conditions
  - Describe the essential production steps of a mc-Si solar cell. Start with suitable poly-Si and discuss essential
    problems encountered with the solutions. Use schematic drawings.
  - Describe "anti reflection" technologies.
  - Compare screen-printing for the deposition of the metallic grid on a Si solar cell to other layer deposition methods. Hint: Consider that a good solar cell may deliver 5 A at 0.5 V and consider how that converts into thickness requirements of the metal grid layer. The specific resistivity pof a decent metal is about 2 μΩcm, the resistance R for a cross sectional area of A cm² and a length I is R = ρ · II A.