I220, Autumn 2002: Exercise 10

1. From the book: 10.3-1.

2. From the book: 10.4-3, 10.4-4.

3. Show the claim made on p. 198 in the book:
   Given a loose module specification $msp = (\Sigma_i, \Sigma_e, \Phi)$ with $\Sigma_i \subseteq \Sigma_e$, let $sp = (\Sigma_e, \Phi)$.
   Show that
   $$\mathcal{M}(sp) = \bigcup_{A \in \mathsf{Alg}(\Sigma_i)} \mathcal{M}(msp)(A).$$

4. From the book: 5.3-3.

5. From the book: 5.5-1.

6. From the book: 5.6-3.