Study Questions for Patterson & Hennesy

Sections 1.1–1.4, front matter, computers in the real world

Pages	
xvi	What did your professor do?
44-45	How will Laotian farmers be advantaged if they get internet connectivity?
Section 1.1	
4	What multiplied in the information revolution?
5	How many bytes are there approximately in a **tera**byte? (Elsewhere in the text you will find giga-, mega- and kilobyte.)
6–7	Messiah alumnus Joe Lehman founded a company that writes applications for the segment of computer processor sales growing faster than desktop and server computers combined. What is this market segment?
8	Cell phones account for more processors than Intel (IA-32), Macintosh (Power PC), and Sun (SPARC) altogether. What is the name of that core architecture?
Section 1.2	
14	What does an assembler do? A compiler?
Section 1.3	
17	Trick question: Is a keyboard an input device, an output device, or an input-output device. Explain.
20	What is cache? Why isn't all memory made of the same kind of RAM as cache memory?
22	One abstraction layer is called the (instruction set) architecture. Which layer is that?
23	What are three important differences between hard drives and main memory?
25	Why do DVDs hold more than CDs? There are three reasons, two of them listed here and one listed in Exercise 1.47 on p. 40.
Section 1.4	
30	I used to think that a computer used the same amount of electricity when it was calculated as when it wasn't. I reasoned that the path of the electricity doesn't matter. I was wrong. Explain. (You may skip pp. 31–32.)