**Typical 5-10 point question:** Describe a manipulation in a list-learning experiment that would reduce the primacy effect without reducing the recency effect.

Describe any manipulation that makes it difficult for the participants to store the information in LTM. An example might be increasing presentation rate.

**Typical 10-15 point question:** Compare and contrast repetition priming versus expectation priming (with respect to letter perception). Which is more of a bottom-up effect and which is more of a top-down effect?

- **Repetition priming** - results from seeing a stimulus on trial n-1 and then trial n (does **not** require multiple repetitions, just one). The detectors get primed that way. Bottom up. [half the points]

- **Expectation priming** - a stimulus becomes a signal/predictor for another stimulus over time; you learn that connection and thus this knowledge leads you to expect a stimulus/pattern. Top down. [half the points]

**Typical 20-25 point question:** Pashler's model of attention states that the "perceive" and "execute" operators can both do at least two tasks simultaneously while the "response selector" operator can do just one task at a time. Suppose you have two stimuli (S1 and S2) that can appear on a screen and you have to make the correct response (R1 and R2) to each. Assume that the perceive operator takes 200msec to do its job under "normal" circumstances for both S1 and S2 when they are presented by themselves. Assume that the response selector takes 100msec to start its job (i.e., after 100msec the response selector is now available to start another task) regardless of the response. Assume the execute operator takes 100 msec to start its job regardless of the response. Draw what happens (i.e., create a timeline in the style we used in class) when S2 appears 150 msec after S1. Now, repeat the above question but assume that the perceive operator can do just one task at a time (and the response selector continues to be able to do one task at a time and the execute operator can still do at least two tasks simultaneously).

- **First part:** The timeline should show that there is no conflict between the two tasks. Because Perceive takes longer than the other two processes, the Select has finished with task 1 when it is needed for task 2 [10-12.5 points]

- **Second part:** If the perceive process can only do one task at a time there should be a PRP between the end of the 150msec at the start of task 1 and before Perceive for task 2 begins. The Perceive process becomes a bottleneck. [10-12.5 points]