1. What are the different types of receptors that hormone work through in order to transduce their signals to the cytoplasm?

2. Why are hormones active in trace amounts? What specific chemical cascades occur during cellular transduction of hormone signals that allow amplification of their signals?

3. You wake up in the morning sleepy, after drinking coffee you find you have more energy. What chemicals and hormonal mechanisms of action are responsible for this effect?

4. Describe the components of G proteins and how they activate cellular events in the cytoplasm.

5. Describe the anatomical and chemical communication system between the hypothalamus and the pituitary gland?

6. What are the major hormones produced in the hypothalamus and what is their function?

7. What are the major pituitary hormones. Describe the chemistry function and regulation of each hormone.

8. Fully describe one major pathophysiological condition in the pitutary of hypothalamus.