

*Answer a total of 12 questions (each 8.33%). You must answer the first three.*

**Compulsory:** (must answer questions 1-3)

1. What is the major difference between a negative feedback and a positive feedback?  
Why is positive feedback less common in our body?
2. In animals, the velocity of action potential may vary depending on the types of nerve.  
Why are they different?
3. Draw a well-labeled diagram showing the oxygen hemoglobin dissociation curve observed under normal physiological conditions. Discuss the advantage of its form.

**Elective:** (choose 2 out of the following)

4. What are the main proteins in our plasma? What are their functions? How can they be isolated from the plasma?
5. Draw a flow-chart showing the events of a synaptic transmission. Explain in how many ways this transmission can be blocked.
6. Draw a flow-chart showing the events that would occur when the pressure acting on the baroreceptors suddenly drops below normal.
7. Use a diagram and explain autoregulation of blood flow in the kidney.
8. What is a 'dead space' in the respiratory system? What useful function does it serve?
9. What is hemorrhage? How would you help or treat a person with hemorrhage?
10. In what ways is the secretion of adrenal medulla normally controlled?
11. Thyroid hormones regulate oxygen consumption of many cells. How is that achieved?
12. Sometimes there may be over- or under-secretion of neurohypophyseal hormones.  
What would be their consequences?
13. What is the evidence that there must be mechanisms existing in our body to regulate our food intake and metabolic activity?
14. How and where is iron absorbed in our body?
15. Why is it important to maintain constant levels of calcium in the blood?

*-End of Questions-*