UNITED NATIONS SCHOOL I.E.D.
PREPARATORY WORKSHOP
SECOND TRIMESTER
BIOLOGY 9°

Copy and solve in the notebook
DELIVERY DATE JULY 15

NAME _____**GRADE**_____ **DATE**_____

The endocrine system consists of specialized structures, called glands. The glands contribute to the control of the internal environment and the composition of each cell and organ of the body as a whole. Depending on the information they receive, they produce, or not, substances known as hormones that act as chemical messengers, that is, they carry the information for a specific activity to be carried out; They are released into the bloodstream to be distributed to the tissues that support them require; there they act by stimulating or repressing cellular activity

1. For hormones to cause a physiological response, they bind to receptors found on the surface or inside the cells, which are called?

2. The mixed glands fulfill an endocrine function, because they release hormones, and an exocrine function because they produce substances that contribute to different processes in the body. In this regard, one of the following examples is NOT true, justify your answer.
   A. The pancreas is a mixed gland because it produces pancreatic juice and the hormone insulin.
   B. The pituitary gland is a mixed gland because it produces the hormones prolactin and somatotropin
   C. The ovaries are mixed glands because they release eggs and progesterone
   D. D The testicles are mixed glands because they produce sperm and the hormone testosterone.

3. It is proven that at the moment of receiving a maximum penalty, a footballer faces great anxiety, maximum tension and anguish, what is the hormone that his body produces and releases in large quantities at those moments?

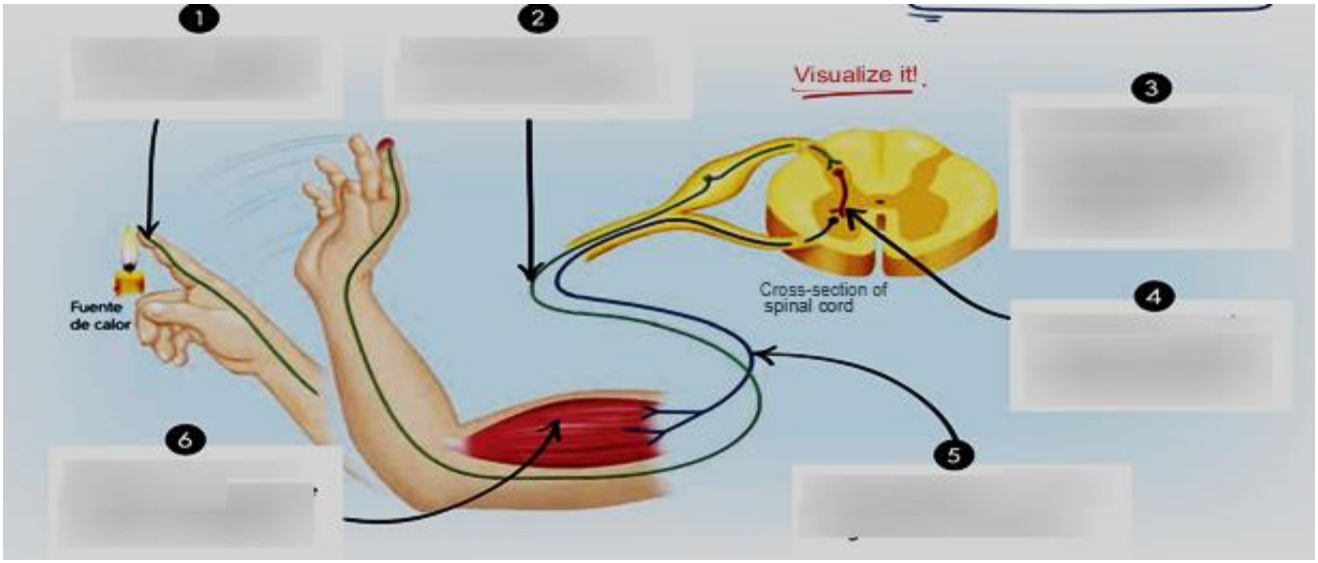
4. Some addictive stimulant substances do not allow neurotransmitters released at a synapse to return to the neuron of origin. In people addicted to cocaine, for example, this manifests itself in long-lasting states of euphoria resulting from the prolonged passage of nervous impulses from one neuron to another. Some neurotoxicants present in the skin of certain animals produce an effect similar to that of stimulants, but they act on neuron-muscle junctions. If a mouse is injected with a sufficient amount of these neurotoxins, what would be your reaction?

5. An example of territorial animals are lions. To protect their territory, they must remain vigilant in a patrolling attitude. It is known that in periods in which a mammal is alert, the different organs of the body receive stimuli from the sympathetic nervous system, while in resting conditions it is the parasympathetic nervous system that sends the signals. A lion perceives the threatening proximity of another lion that could endanger the lives of its cubs. Among the following, the activity that will be increased will be that of what nervous system?

6. In organisms that lack complex sensory systems, such as plants, fungi, unicellular organisms and some invertebrates, responses can be of three types: Tropisms, Tactisms and Nastias. Tropisms occur in plants and manifest themselves in the direction of growth or inclination towards certain stimuli (positive tropism) or in the opposite direction to others (negative tropism). the growth of stems towards the light source and of roots towards the interior of the soil, what tropisms are?

7. The Autonomous Nervous System is a portion of the nervous system that is responsible for receiving information from the internal organs and generating reflex responses to control their functioning. are reflex or involuntary responses, write five examples of involuntary responses

Look at the following diagram of the reflex arc and answer the questions



8. What does correspond the number 1?
9. What does correspond the number 2?
10. What does correspond the number 4?
11. What does correspond the number 5?
12. In the reflex arc scheme the number 6 corresponds to the effector, what is its function?