**QUESTIONS ON CELL SIGNALLING AND HORMONES PREZI**

A *REVIEW* OF CELL SIGNALLING

What are the three phases of signal reception?

The molecule that binds to the receptor is called a \_\_\_\_\_\_\_\_\_\_\_\_

Describe two examples of local signaling mechanisms.

Which two body systems send “long distance” signals?

How are the nervous and endocrine systems complementary?

How are the signaling mechanisms for water-soluble (hydrophilic) and fat-soluble (hydrophobic) hormones different?

What type of signaling molecule is epinephrine? What type of mechanism does it use?

SIGNALING IN **MAMMALS**

What is the ultimate control of both nervous and endocrine systems?

Describe an example of positive feedback (Draw a picture!)

Describe an example of negative feedback (Draw a picture!)

Why is the pituitary called the “master gland”?

List and describe the functions of two hormones released by the posterior pituitary

List and describe the function of two hormones released by the anterior pituitary

What is the function of hormones released by the thyroid?

What does parathyroid hormone do and why is it so important?

How are the functions of insulin and glucagon related?

Of the hormones produced by the adrenal glands, which affect short term stress, and which affect long term stress levels?

Short term stress:

Long term stress:

SIGNALING IN **PLANTS**

Auxin stimulates \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ dominance and inhibits \_\_\_\_\_\_\_\_\_ growth

Gibberellins accelerate \_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and stimulate \_\_\_\_\_\_\_\_\_\_\_\_\_\_ in seeds

Abscisic acid \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ growth

Ethylene is a \_\_\_\_\_\_\_\_ and stimulates \_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Complete the following table describing how plants may respond to the listed environmental conditions:

|  |  |
| --- | --- |
| ENVIRONMENTAL  CONDITION | RESPONSES |
| DROUGHT |  |
| FLOODING |  |
| SALT |  |
| HEAT |  |
| COLD |  |

Why is communication between cells necessary?

How is cellular communication used in multicellular life?

How do mechanisms of cellular communication demonstrate a shared evolutionary history among organisms?