Anatomy 1/23/15

Use your book and laptop as resources to find the answers

Homeostasis and its importance to the normal

functioning of the body:

Homeostasis refers to metabolic balance maintained by several processes. The human body has several examples of homeostasis. Learning about these processes makes it easier to understand how the body maintains its normal functions.

First, let's start with the **definition of homeostasis**. Below is the medical definition from Merriam-Webster.Com The maintenance of relatively stable internal physiological conditions (as body temperature or the pH of blood) in higher animals under fluctuating environmental conditions (dynamic equilibrium).. There are several examples homeostasis in the human body. Learn how our bodies maintain a state of homeostasis in order to ensure our survival.

There are 2 types of feedback systems that we use:

**Negative Feedback** and **Positive Feedback** – define and fill in the information asked for, for each one…..

Negative is…\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Identify the purpose of the parts associated with negative feedback:

variable… causes the change

stimulus….the change that occurs

receptor…

control center…

effector…

response/output…

DO: Determine the receptor, control center, effector, and response for the

following situations

1. **Body temperature homeostasis**

Variable – strenuous exercise

Stimulus – body temperature exceeds 37\*C (98.6\*F)

Receptor –

Control Center –

Effector –

Response –

**What happens if body temperature remains too high?**

1. **Glucose in the blood stream**

Variable – eat a donut

Stimulus – glucose level rises to 200

Receptor –

Control Center –

Effector –

Response –

**What happens if glucose levels remain too high?**

1. **Blood calcium levels**

Variable – lack of calcium in the diet

Stimulus – blood calcium levels drop below normal

Receptor –

Control Center –

Effector –

Response –

**What happens if blood calcium levels remain low?**

Positive is…\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Explain how blood clotting is an example of this….