

FREE RESPONSE QUESTIONS

1. In humans, many body processes are regulated through the actions of hormones. In many cases, there are a pair of hormones that act antagonistically to regulate a given body process. Select **two** of the following four pairs of antagonistic hormones.
- Insulin and Glucagon
 - Calcitonin and Parathyroid hormone
 - Stimulating hormones and Inhibiting hormones from the hypothalamus
 - Antidiuretic hormone and Mineralocorticoids

For each pair:

- Describe** the action of each hormone
 - Describe** the gland of release of each hormone
 - Explain** how the hormonal regulation of that process is an example of positive or negative feedback.
2. The particular type of nitrogenous waste an animal excretes depends on evolutionary history and habitat, however the byproducts of metabolism are naturally very toxic, nitrogen containing wastes.
- Identify the three main types of nitrogenous waste and discuss their biochemical properties.
 - Explain how habitat drives the evolutionary effectiveness of each type of nitrogenous waste.