**CHAPTER 6 - THE ENDOCRINE SYSTEM**

**QUESTION 1**

1. endocrine

2. target organ

3. prolactin

4. growth hormone

5. LH

6. pancreas

7. goiter

8. oxytocin

9. exocrine

10. hormone

**QUESTION 2**

|  |  |  |
| --- | --- | --- |
| **Name of gland** | **Hormone produced** | **Effect of hormone** |
| Testes | Testosterone  | Stimulate secondary sexual characteristics of male/Sperm maturation/etc |
| Pituitary gland | Follicle stimulating hormone | Causes the development of the ova and sperm |
| Hypothalamus  | Antidiuretic hormone | Controls water reabsorption in the kidneys |
| Adrenal gland | Aldosterone  | Controls the Na levels in the capillaries surrounding the renal tubules |
| Adrenalin  | Prepares the body for crisis situations, that is, flight or fight hormone |
| Ovary  | Oestrogen  | Stimulates secondary sexual characteristic in females/etc |
| Progesterone  | Prepares the endometrium for the implantation of the blastula |

**QUESTION 3**

1. a) X

 b) The blood sugar levels are higher than Y and the remain higher for longer than Y

2. 60 minutes

3. a) Insulin

 b) Glucose is used by body for cellular respiration in order to release energy that is required by the cells

4. The alpha cells in the Islets of Langerhans in the pancreas secrete glucagon. Glucagon increases the blood glucose levels by converting glycogen in the liver into glucose, resulting in the blood glucose levels returning to normal.

**QUESTION 4**

1. Regulates oxygen use/regulates growth and development

2. The pituitary gland detects the increase and stops secreting TSH. The decrease in TSH causes the thyroid gland to decrease its production of thyroxin. Excess thyroxin is destroyed by the liver, resulting in the thyroxin levels in the blood returning to normal.

3. Hyperthyroidism