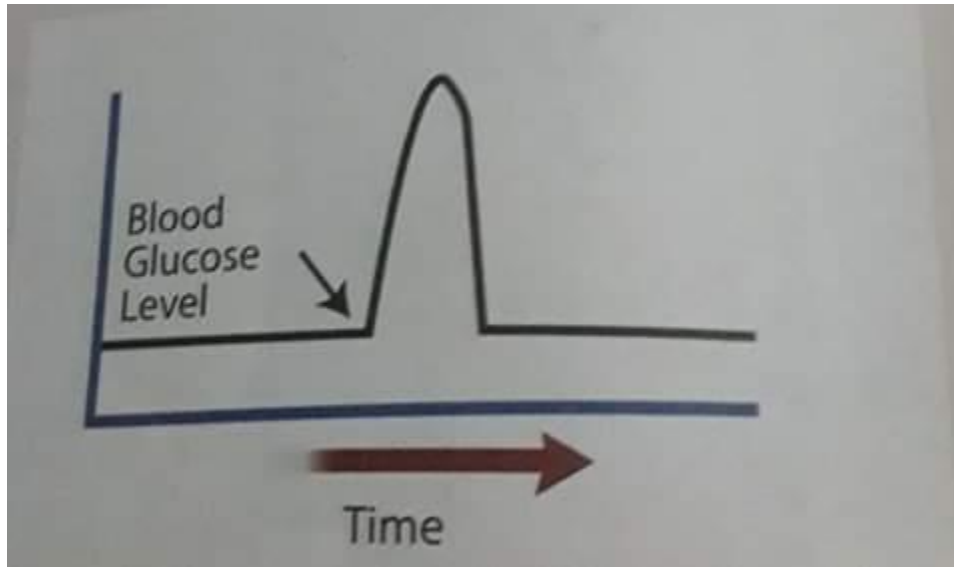


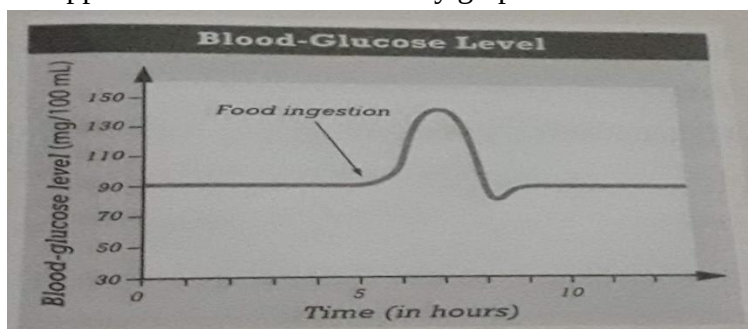
Choose the correct answer from the following

1. The graph show blood glucose level over period of time . which hormone might have caused a sudden as indicated by the arrow

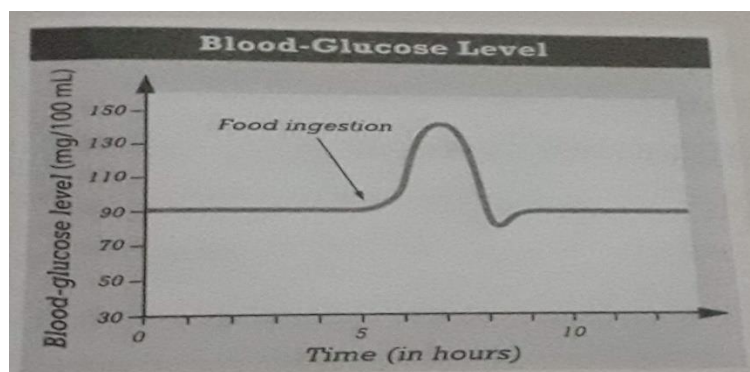


- a. Antidiuretic hormones
 - b. Growth hormones
 - c. Glucagon
 - d. insulin**
2. Which hormones are released from nerve cell rather than endocrine gland ?
- a. Antidiuretic hormones and oxytocin**
 - b. Growth hormones and thyroxin
 - c. Insulin and glucagon
 - d. Norepinephrine and epinephrine
3. Which pairs of hormones have opposite effects ?
- a. Calcitonin and parathyroid hormones**
 - b. Epinephrine and norepinephrine
 - c. Growth hormones and thyroxin
 - d. Aldosterone and cortisol
4. Endocrine glands
- a. Function after puberty
 - b. Function only before puberty
 - c. Release products through ducts
 - d. Release products into the bloodstream**

5. What happens after food eaten ? study graph below to answer this question



- a. **Blood glucose level increase**
 - b. Blood glucose level decrease
 - c. Blood glucose level remain the same
 - d. Blood glucose level decrease and then increase
6. Which hormone are primarily responsible for changing in the blood glucose levels about 2 hours after food eaten ? study the graph to answer this question



- a. **Insulin**
 - b. Estrogen and progesterone
 - c. Epinephrine and norepinephrine
 - d. Aldosterone and parathyroid hormones
7. Steroid hormones are :
- a. Can diffuse through the membrane without a carrier
 - b. Have direct effect on gene expression
 - c. Bind to the membrane receptor
 - d. **Both a and b are correct**
8. An organ is classified as part of the endocrine system if it :
- a. Produce cholesterol
 - b. Is capable converting amino acids into hormones

- c. Has intercellular receptors for hormones
 - d. **Secretes hormones into the circulatory system**
9. Complete the following analogy:
Neurotransmitter : nervous system : hormones :
- a. Feed back mechanism
 - b. **Endocrine system**
 - c. Circulatory system
 - d. Respiratory system
10. Which of the following is true about lipophilic hormones ?
- a. **They are freely soluble in the blood**
 - b. They require a transport proteins in the bloodstream
 - c. They cannot enter their target cell
 - d. They are rapidly deactivated after binding to their receptors

Direct Questions

1. How does the hypothalamus and the pituitary gland interact to control the release of some hormones into the endocrine system?

➤ hypothalamus links the nervous and endocrine systems by way of the pituitary gland.

2. list 6 endocrine glands and the functions of these gland?

The glands of the endocrine system are:

- **Hypothalamus.** is a part of the brain that has a vital role in controlling many bodily functions including the release of **hormones** from the **pituitary gland**
- **Pineal Gland.** it is play a **role** in regulating female reproduction and sexual maturation
- **Pituitary Gland.** plays a major **role** in regulating vital body **functions** and general wellbeing. It is referred to as the body's 'master **gland**'
- **Thyroid.** It plays a major role in the **metabolism, growth** and development of the human **body**.
- **Parathyroid.** plays a role in regulating your body's levels of the minerals **calcium** and phosphorus
- **Thymus.** It functions as the initial site of T **cell** immune maturation through positive and negative selection processes.

3. How do feedback mechanisms help maintain homeostasis

➤ To maintain **Homeostasis** , feedback mechanism controls secretions

4. **how do feedback mechanisms help maintain homeostasis**

- In negative feedback mechanism , the final step in a series of events inhibits the initial . **while** positive feedback mechanism release of an initial hormones stimulates release or production of other hormones which stimulate further of initial hormones

5. Compare effects of glucagon and insulin on blood glucose levels ?

- Glucagon Released stored glucose from the liver.
- Insulin allows cell to absorb glucose from the liver

6. Name four functions of hormones?

- Food metabolism.
 - Growth and development.
 - Controlling thirst and hunger.
 - Maintaining body temperature
 - initiating and maintaining sexual development and reproduction

7. how endocrine gland different from exocrine gland ?

- **Endocrine glands** release chemical substances directly into the bloodstream or tissues of the body. The chemical substances released by the **endocrine glands** are known as hormones **While Exocrine glands** release chemical substances through ducts to outside the body or onto another surface within the body

8. **Explain how amino acids – based on hormones after their target cell ?**

- **Amino acid-based hormones** are made of **amino acids**. ... These **hormones** are not fat-soluble and therefore cannot diffuse through the plasma membrane of their **target cell**. they usually bind to receptors that are found on the **cell** membrane. A non-steroid **hormone** binds with a receptor on the plasma membrane of a **target cell**

9. **Explain how steroids and thyroid hormones affect their target cell ?**

- **Thyroid hormones** bind to receptors already bound to DNA. For both **steroid** and **thyroid hormones**, binding of **the hormone-receptor** complex with DNA triggers transcription of a **target** gene to mRNA, which moves to the cytosol and directs protein synthesis by ribosomes.

10. **Explain why the pancreas is considered to be both exocrine and endocrine gland ?**

- Functioning as an , the **pancreas** excretes enzymes to break down the proteins, lipids, carbohydrates, and nucleic acids in food.

Functioning as an **endocrine gland**, the **pancreas** secretes the hormones insulin and glucagon to control blood sugar levels throughout the day.022020/08/

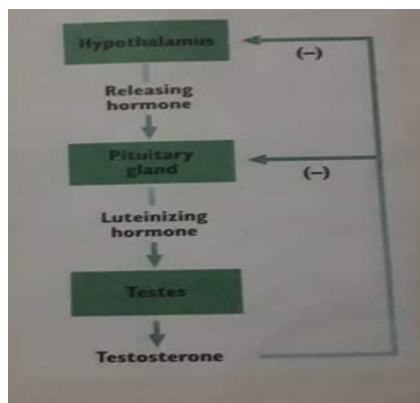
11. **Why pituitary gland is called master gland ?**

- because it controls the activity of most other hormone-secreting **glands**

12. describe conditions of Gigantism and dwarfism , their causes and treatments?

- Growth hormone deficiency (GHD) occur when pituitary gland does not produce enough growth hormones .It more commonly effects children than adults
- Gigantism is a rare condition that causes abnormal growth in children. Can cause condition called Gigantism

13. Identify and describe the type of feedback mechanism?



- The **hypothalamus** is a small region of the brain. It's located at the base of the brain, near the pituitary gland. While it's very small, the **hypothalamus** plays a crucial role in many important functions, including: releasing hormones. Regulating body temperature
- The **pituitary gland** is a small pea-sized **gland** that plays a major role in regulating vital body functions and general wellbeing.
- **Luteinizing hormone (LH)**? Luteinizing **hormone (LH)** is a **hormone** associated with reproduction and stimulating the release of an egg from the ovaries (ovulation) in women and the production of testosterone
- **testosterone** : A "male hormone" - a sex hormone produced by the testes that encourages the development of male sexual characteristics, stimulates the activity