

16) Endocrine System-I

1. Which of the following is NOT a major function of the endocrine system?

- A) Growth and development
- B) Regulating body temperature
- C) Regulation of cellular metabolism
- D) Reproduction

2. Which hormones are derived from the amino acid tyrosine?

- A) Insulin and glucagon
- B) T3 and T4
- C) Growth hormone and prolactin
- D) Estrogen and progesterone

3. Most steroid hormones are synthesized from:

- A) Carbohydrates
- B) Amino acids
- C) Cholesterol
- D) Fatty acids

4. In the Cell Membrane Phospholipid Second Messenger System, which molecule is responsible for mobilizing calcium ions?

- A) DAG
- B) cAMP
- C) IP3
- D) Protein kinase C

5. Which of the following is NOT an example of a Protein/Peptide hormone?

- A) Insulin
- B) Glucagon
- C) Epinephrine

D) Hormones from the anterior pituitary gland

True or False Questions:

6. The endocrine system, alongside the nervous system, is essential for regulating bodily functions and maintaining homeostasis. (True / False)
7. Neurotransmitters are a type of endocrine hormone. (True / False)
8. The cAMP Second Messenger System operates by activating the enzyme phospholipase C. (True / False)

Fill in the Blank Questions:

9. Chemical messengers that are released into the bloodstream to affect the functioning of a cell in another location are called _____.
10. In the Calcium-Calmodulin Second Messenger System, calcium ions bind with the protein _____.

Short Answer Questions:

11. Briefly explain the difference between protein/peptide hormones and steroid hormones in terms of their storage within cells.
12. What is the significance of signal amplification in the context of hormonal action mechanisms?