Hello Everyone! This is the Endocrine System Practice Questions. Attempt them only after reviewing the Endocrine Concept Questions, as well as going through the lecture materials. This worksheet is intended solely as a support resource to aid your studying. It is not created, reviewed, or endorsed by the professor. The material is based on approaches used by past SI leaders and reflects general patterns observed in exam-style questions. While it is designed to help you practice and strengthen your understanding, it should be used alongside official course materials.

1. A hormone that acts on the same cell that secreted it is best described as:
A. Endocrine
B. Paracrine
C. Autocrine
D. Juxtacrine

2. Which hormone is produced by cleavage of a larger precursor protein?
A. Cortisol
B. Insulin
C. Thyroxine
D. Aldosterone

3. Which type of receptor is MOST likely used by thyroid hormone?
A. G-protein coupled receptor
B. Tyrosine kinase receptor
C. Nuclear receptor
D. Ion channel receptor

4. Activation of a G-protein occurs when:
A. GDP binds to β-subunit
B. GTP binds to α-subunit
C. ATP binds to receptor
D. Ca^{2+} binds to ligand

5. Which pair demonstrates a permissive effect?
A. Insulin and glucagon
B. Cortisol and catecholamines
C. PTH and calcitonin
D. Epinephrine and norepinephrine

6. The anterior pituitary is regulated primarily through:
A. Direct neural input
B. Portal blood vessels
C. Lymphatic drainage
D. Hormone diffusion

Hello Everyone! This is the Endocrine System Practice Questions. Attempt them only after reviewing the Endocrine Concept Questions, as well as going through the lecture materials. This worksheet is intended solely as a support resource to aid your studying. It is not created, reviewed, or endorsed by the professor. The material is based on approaches used by past SI leaders and reflects general patterns observed in exam-style questions. While it is designed to help you practice and strengthen your understanding, it should be used alongside official course materials.

7. Which adrenal cortex layer produces glucocorticoids?
A. Zona glomerulosa
B. Zona fasciculata
C. Zona reticularis
D. Medulla

8. A decrease in blood volume will initially cause:
A. Decreased renin release
B. Increased angiotensin II
C. Decreased aldosterone
D. Increased potassium excretion

9. Aldosterone primarily increases:
A. Glucose reabsorption
B. Na^+ reabsorption
C. Ca^{2+} reabsorption
D. Protein synthesis

10. Which condition would MOST strongly stimulate aldosterone secretion?
A. Hypernatremia
B. Hyperkalemia
C. Hypoglycemia
D. Hypercalcemia

11. Cortisol increases blood glucose by:
A. Increasing insulin sensitivity
B. Increasing gluconeogenesis
C. Increasing glycogenesis
D. Decreasing lipolysis

12. Which hormone is MOST responsible for maintaining basal metabolic rate?
A. Insulin
B. Cortisol
C. T3
D. Aldosterone

Hello Everyone! This is the Endocrine System Practice Questions. Attempt them only after reviewing the Endocrine Concept Questions, as well as going through the lecture materials. This worksheet is intended solely as a support resource to aid your studying. It is not created, reviewed, or endorsed by the professor. The material is based on approaches used by past SI leaders and reflects general patterns observed in exam-style questions. While it is designed to help you practice and strengthen your understanding, it should be used alongside official course materials.

13. Which step in thyroid hormone synthesis involves formation of MIT and DIT?
A. Iodide pumping
B. Oxidation
C. Organification
D. Coupling

14. Why is T3 more potent than T4?
A. It binds plasma proteins more strongly
B. It is produced in larger amounts
C. It has greater receptor affinity
D. It is excreted more slowly

15. PTH secretion is directly stimulated by:
A. High Ca^{2+}
B. Low Ca^{2+}
C. High phosphate
D. Low sodium

16. PTH increases serum calcium by:
A. Increasing renal Ca^{2+} excretion
B. Decreasing bone resorption
C. Increasing intestinal absorption indirectly
D. Increasing phosphate retention

17. Why does PTH cause phosphate excretion?
A. To decrease calcium binding to phosphate
B. To increase bone formation
C. To decrease renal filtration
D. To increase Mg^{2+} levels

18. Which pancreatic cell type secretes insulin?
A. Alpha cells
B. Beta cells
C. Delta cells
D. PP cells

Hello Everyone! This is the Endocrine System Practice Questions. Attempt them only after reviewing the Endocrine Concept Questions, as well as going through the lecture materials. This worksheet is intended solely as a support resource to aid your studying. It is not created, reviewed, or endorsed by the professor. The material is based on approaches used by past SI leaders and reflects general patterns observed in exam-style questions. While it is designed to help you practice and strengthen your understanding, it should be used alongside official course materials.

19. Glucagon primarily acts to:
A. Decrease blood glucose
B. Increase glycogen synthesis
C. Increase gluconeogenesis
D. Increase insulin release

20. Which second messenger is commonly used by glucagon?
A. cGMP
B. IP3
C. cAMP
D. Ca^{2+}

21. Insulin lowers blood glucose by:
A. Increasing gluconeogenesis
B. Increasing glucose uptake into cells
C. Increasing glycogen breakdown
D. Decreasing lipogenesis

22. Somatostatin's primary function in the pancreas is to:
A. Increase insulin secretion
B. Increase glucagon secretion
C. Inhibit both insulin and glucagon
D. Increase GI motility

23. Melatonin secretion is MOST influenced by:
A. Blood glucose levels
B. Light exposure
C. Calcium levels
D. Thyroid hormone

24. Which molecule is the precursor for prostaglandins?
A. Cholesterol
B. Tyrosine
C. Arachidonic acid
D. Tryptophan

Hello Everyone! This is the Endocrine System Practice Questions. Attempt them only after reviewing the Endocrine Concept Questions, as well as going through the lecture materials. This worksheet is intended solely as a support resource to aid your studying. It is not created, reviewed, or endorsed by the professor. The material is based on approaches used by past SI leaders and reflects general patterns observed in exam-style questions. While it is designed to help you practice and strengthen your understanding, it should be used alongside official course materials.

25. NSAIDs reduce inflammation by inhibiting:
A. Lipoxygenase
B. Cyclooxygenase
C. Adenylyl cyclase
D. Phospholipase C