Suggested questions – Endocrine system
Source : Sherwood's Test-Bank

1. Which of the following has a direct anatomical connection to the hypothalamus?
   (a) adrenal gland
   (b) posterior lobe of the pituitary
   (c) thyroid gland
   (d) parathyroid gland
   (e) none of these answers.

ANSWER: b

2. Select the incorrect association.
   (a) adrenal medulla/vasopressin
   (b) anterior pituitary/adenohypophysis
   (c) epinephrine/catecholamine
   (d) insulin/polypeptide
   (e) posterior pituitary/neurohypophysis

ANSWER: a

3. Which structure(s) is/are neuroendocrine in nature?
   (a) anterior pituitary gland.
   (b) posterior pituitary gland.
   (c) hypothalamus
   (d) both (a) and (b) above.
   (e) both (b) and (c) above.

ANSWER: e

4. Hormone secretion from the anterior pituitary gland is controlled
   (a) by hypophysiotropic hormones from the hypothalamus.
   (b) directly by neural innervation of anterior pituitary cells.
   (c) by negative-feedback action of target-tissue hormones.
   (d) both (a) and (c) above.
   (e) all of these answers.

ANSWER: d

5. Which one of the following hormones signals the kidneys to control water balance?
   (a) vasopressin
   (b) ACTH
   (c) TRH
   (d) somatostatin
   (e) prolactin-inhibiting hormone

ANSWER: a

6. Growth hormone
   (a) closes the epiphyseal plate of long bones.
   (b) promotes hypertrophy and hyperplasia.
   (c) secretion is stimulated by an increased blood glucose level.
   (d) is the only factor responsible for governing the growth of an individual.
   (e) all of these answers.

ANSWER: b

7. Growth hormone
   (a) directly stimulates bone growth.
   (b) exerts its effects on bones via somatomedin release.
   (c) promotes closure of the epiphyseal plate.
   (d) both (a) and (c) above.
   (e) both b) and (c) above.

ANSWER: b

8. Somatomedins are released from the liver in response to
   (a) increased plasma growth hormone levels.
   (b) increased plasma somatostatin levels.
   (c) decreased plasma growth hormone levels.
   (d) decreased plasma somatostatin levels.
   (e) elevated levels of blood sugar.

ANSWER: a

9. Dwarfism may be the result of a deficiency of
   (a) growth-hormone releasing hormone.
   (b) GH.
   (c) somatomedins.
   (d) both GH and somatomedins are correct.
   (e) all of these answers.

ANSWER: e

10. Which hormone below targets osteoclasts when blood calcium levels are too low, thus, causing an increase in the concentration of calcium in the blood
   (a) aldosterone.
   (b) thyroid hormone.
   (c) cortisol.
   (d) parathyroid hormone.
   (e) calcitonin.

ANSWER: d

11. Aldosterone
   (a) enhances the ability of the kidneys to eliminate excess K^+.
   (b) directly promotes H_2O conservation by the kidneys.
   (c) secretion is encourages by angiotensin II.
   (d) is nonsteroidal.
   (e) is produced ion the adrenal medulla.

ANSWER: a

12. The major factor that promotes increased secretion of cortisol from the adrenal cortex is
   (a) low Na^+ concentration in the extracellular fluid.
   (b) stress.
   (c) angiotensin II.
   (d) increased blood amino acid concentration.
   (e) increased blood glucose concentration.

ANSWER: b

13. Increased levels of which of the following hormones would not result in increased blood fatty acid levels?
    (a) glucagon
    (b) growth hormone
    (c) insulin
    (d) epinephrine
    (e) cortisol

ANSWER: c

14. Which of the following statements concerning vitamin D is incorrect? Vitamin D
    (a) can be synthesized by the skin on exposure to sunlight.
    (b) must be modified by biochemical alterations within the liver and kidneys before it is biologically active.
    (c) enhances the effect of calcitonin on bone.
    (d) increases Ca^{2+} absorption in the intestine.

ANSWER: c

15. The hormone causing bone resorption is secreted by the _____, while that causing calcium deposition is secreted by the _____.
    (a) adrenal cortex; thyroid.
    (b) thyroid, parathyroid.
    (c) parathyroid, thyroid.
    (d) thyroid, adrenal medulla.
    (e) thyroid, adrenal cortex.

ANSWER: c

(True or False)

16. Thyroid-stimulating hormone is produced by the thyroid gland.

ANSWER: False

17. Thyroid hormone is stored within the colloid attached to thyroglobulin.

ANSWER: True

18. In people who work during the day, cortisol levels in the plasma are normally higher in the morning than at night.

ANSWER: True

19. Elevated blood amino acid levels stimulate the secretion of both insulin and glucagon even though they exert opposite effects on blood amino acid concentration.

ANSWER: True

20. The presence of vitamin D is necessary for PTH to exert its effect on promoting intestinal Ca^{2+} absorption.

ANSWER: False

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Best of Luck ☺