Hormones and the Autonomic Nervous System Topic Test

Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_--

This test has 3 parts:

1. Multiple choice. Please answer onto the grid on this page. Place an X on the answer you think to be most correct.

(20 marks)

1. Short answer section. Please answer into this booklet.

(8 marks)

1. Extended answer section. Please answer these into this booklet.

(30 marks)

|  |  |  |
| --- | --- | --- |
| Section | Possible mark | Your mark |
| 1 | 10 |  |
| 2 | 10 |  |
| 3 | 30 |  |
| Total | 50 |  |

Answer Grid

|  |  |
| --- | --- |
| Question | Answer |
| 1 | A B C D |
| 2 | A B C D |
| 3 | A B C D |
| 4 | A B C D |
| 5 | A B C D |
| 6 | A B C D |
| 7 | A B C D |
| 8 | A B C D |
| 9 | A B C D |
| 10 | A B C D |

1. The sympathetic nervous system is part of which of the larger systems listed below?
2. The Central Nervous System.
3. The Central Somatic Nervous System.
4. The Peripheral Somatic Nervous System.
5. The Peripheral Autonomic Nervous System.
6. The Hormone adrenaline is made in which of the following structures?
7. Adrenal medulla.
8. Adrenal cortex.
9. Hypothalamus gland.
10. Islets of Langerhans.
11. Which of the following statements about calcitonin is correct?
12. It is produced in the thyroid gland and helps balance the amount of calcium in the blood.
13. It is produced in the parathyroid gland and helps balance the amount of calcium in the blood.
14. It is produced in the hypothalamus and increases calcium deposition in the bones.
15. It is produced in the hypothalamus and helps add calcium to your teeth.
16. The corpus luteum can be described as which of the following?
17. A temporary exocrine gland producing follicle stimulating hormone.
18. A temporary endocrine gland producing follicle stimulating hormone.
19. A temporary exocrine gland producing oestrogen only.
20. A temporary endocrine gland producing oestrogen and progesterone.
21. Which of the following statements about males when they reach puberty is **not** true?
22. One of the target organs of testosterone is the larynx.
23. One of the target tissues of testosterone is the skeletal muscles.
24. Testosterone reduces the amount of fat below the skin of the face.
25. Oestrogen production stops.
26. Cushing’s Syndrome is a hormone disorder caused by high levels of cortisol in the blood. This could be caused by which of the following?
27. Dysfunction of the pituitary gland.
28. Dysfunction of the Islets of Langerhans.
29. Dysfunction of the testes.
30. Dysfunction of the ovaries.
31. What is the ultimate function of hormones?
32. Maintain homeostasis.
33. Stimulate growth.
34. Stimulate metabolism.
35. Maintain adults in a state allowing reproduction to take place.
36. During exercise, adrenaline secretion is stimulated by which of the following?
37. Increased plasma glucose.
38. Increased plasma fatty acids.
39. Increased plasma ACTH.
40. Increased sympathetic nerve activity.
41. Which of the following is **not** true about hormones?
42. Hormones travel in the blood.
43. Hormones are produced in endocrine glands.
44. Hormones are specific in the tissues that they target.
45. Hormones are produce in the blood.
46. Which of the following functions both as an endocrine gland and an exocrine gland?
47. The pituitary.
48. The adrenal medulla.
49. The adrenal cortex.
50. The Pancreas.

Short Answer Question

Please answer these questions into this answer booklet.

While serving as president, President Bush Senior was diagnosed with a disorder of one of his glands. The gland was over productive. It made too much of a particular hormone.

To treat this disorder he was given an oral dose of radioactive iodine. This iodine was taken up by the overactive gland. The radioactive iodine damages the tissue of the gland and over production of the hormone stops.

The treatment worked. “Within a few months” Bush’s gland was no longer over producing the hormone. In fact, it was now producing too little. Thus, Bush began taking, for the rest of his life, a pill containing synthetic hormone called “Synthroid”.

1. Which gland was it that was over-productive?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

(1 mark)

Give a reason for your choice.

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(1 mark)

1. What was the name of the Disorder that President George Bush Senior had?

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(1 mark)

1. List any two of the symptoms the President would have experienced.

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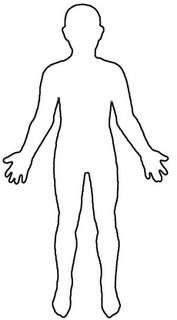
(1 mark)

1. What did “Synthroid” replace?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

(1 mark)

2. Onto the diagram below draw and label 5 major endocrine glands.



( 5 marks)

Extended Answer Section

(30 marks)

1. The hypothalamus is an important control center in the brain. The Pituitary gland is often referred to as the “Master gland” and is essential for the functioning of the endocrine system.

Describe the relationship between the hypothalamus and the anterior and posterior lobes of the pituitary gland.

(6 marks)

1. Chose five(5) pituitary hormones, including those from both lobes, and describe their effects and respective target cells or organs.

(15 mark)

1. Compare and contrast the sympathetic and parasympathetic nervous systems.

(9 marks)

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