Nervous Tissue

<u>Multiple choice</u>: Choose the single best answer

1. After a neuron has been stimulated there is a period of time when the neuron cannot be stimulated again. This is the
   a. refractory period.
   b. resting period.
   c. repolarization.
   d. depolarization.
2. All of the following are parts of a neuron except
   a. axon.
   b. dendrites.
   c. synaptic knob.
   d. myelin sheath.
3. The _____ conducts the impulse towards the synaptic knob.
   a. axon
   b. dendrite
   c. Schwann cell
   d. neurilemma
4. Communication between two neurons occurs at the _____.
   a. cell body
   b. receptor
   c. dendrite
   d. synapse
   e. axon
5. Acetylcholinesterase
   a. enhances the effect of acetylcholine.
   b. transmits the message across the synapse.
   c. destroys acetylcholine after its release.
   d. stimulates the opening of the calcium channels.
6. The autonomic nervous system does not
   a. innervate smooth muscles.
   b. innervate cardiac muscles.
   c. innervate skeletal muscles.
   d. innervate glands.
7. Saltatory conduction only occurs with _____.
   a. bipolar fibers
   b. myelinated fibers
   c. unmyelinated fibers
   d. motor fibers
8. _____ is actively pumped out of a cell membrane to help establish a resting membrane potential.
   a. Sodium
   b. Potassium
   c. Calcium
   d. Chloride
9. Ependymal cells
   a. form the blood-brain barrier.
   b. are neuroglia.
   c. help circulate the cerebrospinal fluid.
   d. are found in the peripheral nervous system.
10. Oligodendrocytes perform a similar function as the _____.
    a. astrocytes
    b. ependymal cells
    c. microglia
    d. Schwann cells
11. The sodium-potassium pump
    a. moves three sodium ions outside the cell and two potassium ions inside.
    b. moves two sodium ions inside the cell and three potassium ions outside.
    c. moves two sodium ions outside the cell and three potassium ions inside.
    d. moves three sodium ions inside the cell and two potassium ions outside.
12. At the peak of the action potential _____ channels close and _____ channels open.
    a. potassium; sodium
    b. sodium; potassium
    c. calcium; sodium
    d. potassium; calcium

13. The difference between the inside and outside of a resting neuron is that the outside of the cell
    a. has a negative charge and contains less sodium.
    b. has a negative charge and contains more sodium.
    c. has a positive charge and contains more sodium.
    d. has a positive charge and contains less sodium.
14. Depolarization of a membrane of a nerve cell occurs by the rapid influx of
    a. potassium ions.
    b. chloride ions.
    c. organic anions.
    d. sodium ions.
15. During repolarization of a neuron
    a. sodium ions rapidly move to the inside of the cell.
    b. sodium ions rapidly move to the outside of the cell.
    c. potassium ions rapidly move to the outside of the cell.
    d. potassium ions rapidly move to the inside of the cell.

Fill-in-the-Blanks: Complete the following statements. The answer may be a single word or a phrase.

1. The part of the nervous system that is voluntary and conducts impulses from the CNS to the skeletal muscles is the _____ nervous system.
2. The gap between Schwann cells in the peripheral system is called a(n) _____.
3. The autonomic nervous system consists of the _____ nervous system and the _____ nervous system.
4. A neuron that transmits a nerve impulse toward the central nervous system is called a(n) _____ neuron.
5. The myelin sheath is formed by the _____ in the central nervous system and the _____ in the peripheral nervous system.
6. Along a neuron, the correct pathway for impulse conduction is _____ to the _____ to the _____.
7. Fascicles are covered by a connective tissue layer called the _____.
8. Regeneration of nerve fibers will take place only if the cell body is intact and the fibers have a(n) _____.
9. The first event to occur when an adequate stimulus is applied to a neuron is _____.
10. Compared to the inside of the cell membrane, the outside of most cell membranes is _____.
11. When an impulse reaches the synaptic knob, _____ enter the knob.
12. Neurotransmitters are released in a synapse and bind to the _____ on the _____.
13. Afferent neurons are also called _____neurons.
14. The _____ are capable of phagocytosis.
15. The blood-brain barrier is formed by the _____.
16. The _____ neuron innervates muscles, causing contractions
17. The _____ nervous system consists of the brain and the spinal cord.
18. During depolarization, the _____ channels are open.
19. During the _____ the neuron cannot be stimulated.
20. A nerve impulse is also known as a(n) _____.
21. The _____ refers to the membrane of a non-conducting neuron.
22. The potassium channels are open during _____.
23. The _____ is necessary to establish the resting membrane potential.
24. The following are steps in the conduction of an impulse at a synapse. Place them in proper sequence beginning with the first and ending with the sixth.
    a. neurotransmitters bind to receptor molecules
    b. neurotransmitters are inactivated by enzymes
    c. action potential reaches the synaptic knob
    d. neurotransmitters move across synaptic cleft
    e. opening of ion channels in postsynaptic membrane

f. intercellular Ca++ concentration triggers movement of neurotransmitter vesicles to the plasma membrane

First _____ Fourth _____
Second _____ Fifth _____
Third _____ Sixth _____

25. The proper sequence over the reflex arc is:
    a. _____
    b. _____
    c. _____
    d. _____
    e. _____

True or False

1. The afferent nervous system consists of all outgoing motor pathways.
2. Nerve fibers with myelin sheaths make up gray matter.
3. Oligodendrocytes form myelin sheaths around nerve fibers in the CNS.
4. Groups of cell bodies located in the brain or spinal cord are known as ganglia.
5. In an adult, brain cells only undergo mitosis when it is necessary to replace damaged neurons.
6. Neurons are the only cells with a difference in charges between the interior and exterior of the cells.
7. A resting neuron has a slight positive charge inside the plasma membrane.
8. The sodium-potassium pump actively pumps 3 potassium ions out of the neuron and 2 sodium ions into the neuron.
9. The membrane potential is the difference in electrical charge between the inside and outside of a membrane.
10. Unmyelinated fibers conduct impulses faster than myelinated fibers.
11. When epinephrine and norepinephrine are released into the bloodstream, they are called hormones instead of neurotransmitters.

Central Nervous System

<u>Multiple choice</u>: Choose the single best answer

1. Cerebrospinal fluid is produced in the _____.
   a. choroid plexus
   b. falx cerebelli
   c. dural sinus
   d. falx cerebri
   e. sagittal sinus
2. CSF passes from the third ventricle to the fourth ventricle through the _____.
   a. medulla oblongata
   b. central canal
   c. interventricular foramina
   d. cerebral aqueduct
3. The part of the brain that is involved in conscious thought and intellectual function is the
   a. mesencephalon.
   b. hypothalamus.
   c. diencephalon.
   d. cerebrum.
   e. thalamus.
4. The _____ is the location of the auditory cortex.
   a. temporal lobe
   b. occipital lobe
   c. frontal lobe
   d. parietal lobe
5. The ventricle located between the pons and the cerebellum is the _____.
   a. first
   b. third
   c. second
   d. fourth
   e. lateral
6. Equilibrium, posture and coordination are associated with the _____.
   a. cerebellum
   b. pons
   c. mesencephalon
   d. medulla
   e. cerebrum
7. The _____ is a link between the nervous and endocrine systems.
   a. pons
   b. medulla oblongata
   c. hypothalamus
   d. cerebellum
   e. cerebrum
8. The _____ is the location of the visual cortex.
   a. frontal lobe
   b. parietal lobe
   c. temporal lobe
   d. occipital lobe
9. The primary motor cortex is located in the
   a. central sulcus.
   b. precentral gyrus.
   c. corpus callosum.
   d. postcentral gyrus.
10. The brain stem consists of the
    a. midbrain, medulla, and pons.
    b. pons, medulla, cerebellum, and midbrain.
    c. cerebrum, pons, midbrain, and medulla.
    d. midbrain only.
11. The subarachnoid space is located between the _____ and the _____.
    a. arachnoid mater; pia mater
    b. arachnoid mater; dura mater
    c. dura mater; skull
    d. arachnoid mater; brain
12. The ventricles located within the cerebral hemispheres are the _____.
    a. first and second ventricles
    b. second and third ventricles
    c. lateral ventricles
    d. medial ventricles
13. Symptoms of fluctuating body temperature, intense thirst, and insomnia might indicate that an individual has dysfunction of the
    a. hypothalamus.
    b. pons.
    c. medulla oblongata.
    d. pituitary gland.
    e. cerebellum

14. Cerebrospinal fluid is found within the
    a. epidural space, subarachnoid space, and dural sinuses.
    b. subarachnoid space, dural sinuses and ventricles.
    c. central canal, epidural space and subarachnoid space.
    d. ventricles, central canal, and subarachnoid space.
    e. central canal, epidural space and ventricles.

Fill-in-the-Blanks: Complete the following statements. The answer may be a single word or a phrase.

1. The fourth ventricle is continuous with the _____ of the spinal cord.
2. The commissural fibers that connect the right and left sides of the brain form the _____.
3. The infundibulum connects the hypothalamus to the _____.
4. The _____ system is the emotional brain.
5. The innermost layer of the meninges is the _____.
6. Cerebrospinal fluid circulates through the ventricles, into the central canal and _____, and is absorbed back into the blood.
7. If the ventral nerve root of a spinal nerve were destroyed, a person would lose _____.
8. The part of the brain that can directly influence or inhibit the release of hormones from the pituitary is the _____.
9. The brainstem contains the _____, the _____ and the _____.
10. The central nervous system includes the _____ and the _____.
11. The _____ functions in maintaining body posture.
12. Cardiac and respiration centers are located in the _____.
13. Memory is stored in the _____.
14. Motor activity of skeletal muscles originates in the _____.
15. The _____ is responsible for controlling body temperature.
16. Cerebrospinal fluid is produced in the _____ of the ventricles.
17. The surface of the postcentral gyrus contains the _____.
18. If the dorsal root ganglia of the spinal nerve were destroyed, a person would lose _____.

True or False

1. The central nervous system includes the brain, spinal cord, and autonomic nerves.
2. Cerebrospinal fluid circulates in the subarachnoid space of the meninges.
3. The spinal cord completely fills the spinal cavity in the vertebrae.
4. Peripheral motor neuron cell bodies are located in the dorsal root ganglia of the spinal nerves.
5. The thalamus acts as a relay station for ascending sensory impulses.
6. An engram is a measurement of nerve impulse conduction.
7. The limbic system of the brain primarily functions in the production of speech.
8. Ascending tracts carry only sensory information, while descending pathways carry only motor information.
9. Formation of the cerebrospinal fluid occurs mainly in the choroid plexus.
10. Functions of the brainstem include language, memory, and emotions.

Peripheral Nervous System

<u>Multiple choice</u>: Choose the single best answer

1. The ascending tracts of the spinal cord carry
   a. sensory information from the brain.
   b. sensory information to the brain.
   c. motor information to the brain.
   d. motor information from the brain.
2. The union of the dorsal and ventral roots of spinal cord form a
   a. spinal meninges.
   b. spinal nerve.
   c. vertebral ganglion.
   d. spinal ganglion.
3. The dorsal root of a spinal nerve contains
   a. cell bodies of sensory neurons.
   b. axons of sensory neurons.
   c. cell bodies of motor neurons.
   d. axons of motor neurons.
   e. interneurons.
4. Spinal nerves are _____ nerves.
   a. purely motor
   b. involuntary
   c. mixed
   d. purely sensory
5. Problems with balance can be caused by damage to the _____ nerve.
   a. optic
   b. otomotor
   c. trigeminal
   d. vestibulocochlear
6. Most sympathetic postganglionic fibers release _____ at the effector.
   a. norepinephrine
   b. acetylcholine
   c. dopamine
   d. serotonin
7. Most of the organs of the body receive innervations from
   a. the parasympathetic division of the autonomic nervous system.
   b. the sympathetic division of the autonomic nervous system.
   c. both divisions of the autonomic nervous system.
   d. the central nervous system.
8. The autonomic nervous system
   a. innervates all visceral organs.
   b. conducts visceral sensory and motor impulses.
   c. regulates and controls vital activities.
   d. all of the above describe the autonomic nervous system.
9. The ventral root of a spinal nerve contains the
   a. cell bodies of sensory neurons.
   b. axons of sensory neurons.
   c. cell bodies of motor neurons.
   d. axons of motor neurons.
10. The autonomic nervous system has _____, which is different than the somatic nervous system.
    a. two afferent neurons
    b. two efferent neurons
    c. muscle tissue as an effector
    d. both afferent and efferent fibers
11. If the ventral root of a spinal nerve were cut, this would cause
    a. complete loss of voluntary movement and reflex activity at the level of the nerve.
    b. complete loss of sensation and reflex activity at the level of the nerve.
    c. complete loss of sensation and movement and reflex activity at the level of the nerve.
    d. loss of neither sensation nor movement, only of autonomic control at the level of the nerve.
12. The outermost covering of the spinal cord is the
    a. dura mater.
    b. arachnoid mater.
    c. cauda equina.
    d. pia mater.
    e. filum terminale.

13. The division of the autonomic nervous system that maintains homeostasis during resting conditions is the _____ division.
    a. parasympathetic
    b. enteric
    c. spinal
    d. sympathetic
    e. central
14. Nerves conducting impulses toward the central nervous system are
    a. afferent
    b. efferent
    c. motor
    d. afferent and motor
    e. efferent and motor

Fill-in-the-Blanks: Complete the following statements. The answer may be a single word or a phrase.

1. Ventral spinal cord roots contain _____ fibers, while the dorsal roots contain _____ fibers.
2. The _____ nerve is the only major nerve out of the cervical plexus.
3. The sympathetic division is referred to as the _____ system.
4. The _____ adrenergic receptors are found in the heart, and when activated increase heart rate.
5. The parasympathetic division only releases _____ as a neurotransmitter.
6. The autonomic division of the nervous system is responsible for _____.
7. The _____ nervous system originates in the craniosacral region of the spinal cord.
8. The route of major parasympathetic outflow from the head is the _____ nerve.
9. All preganglionic axons of the autonomic nervous system release _____.
10. The nerve that carries impulses related to the retina is the _____ nerve.
11. The sensory cranial nerves include the _____, _____ and _____ nerves.
12. The neurotransmitter released at the neuromuscular junction is _____.
13. Norepinephrine is released by the _____.
14. The _____ nervous system has ganglia near or embedded in visceral effectors.
15. Cholinergic fibers include _____ of the somatic nervous system; _____ of the sympathetic nervous system and the _____ of the parasympathetic nervous system.
16. Beta blockers inhibit the action of the neurotransmitter of the _____ nervous system.
17. The _____ nervous system is activated under stress conditions.
18. The _____ nervous system includes the vagus nerve (cranial nerve X).
19. The sympathetic nervous system originates in the _____ region of the spinal cord.
20. The following are the steps involved in a reflex arc.
    1. activation of a sensory neuron
    2. activation of a motor neuron
    3. response by an effector
    4. arrival of a stimulus and activation of a receptor
    5. information processing

    Place them in order.
    First _____, Second _____, Third _____, Fourth _____ and Fifth _____.
21. The _____ nervous system has long preganglionic fibers and short postganglionic fibers.
22. The _____ nervous system has a chain of ganglia located near the spinal column.

True or False

1. There are 31 pairs of spinal nerves, all of which consist of both motor and sensory fibers.
2. Somatic reflexes cause contractions of smooth muscles.
3. All visceral effectors are innervated by sympathetic fibers.
4. The parasympathetic and sympathetic divisions work together causing a summation of action.
5. Most effectors of the autonomic system are dually innervated by sympathetic and parasympathetic neurons.
6. Preganglionic neurons conduct impulses from the autonomic ganglion to the target.
7. The sympathetic division is the dominant controller of the body at rest.

8. All cell bodies of the autonomic nervous system are located within the CNS.
9. The neurotransmitter released by both sympathetic neurons, preganglionic and postganglionic, is acetylcholine.
10. The "fight-or-flight" reaction is a normal response in times of stress.
11. Autonomic effects require two efferent neurons.

Sensory Receptors

<u>Multiple choice</u>: Choose the single best answer

1. The central opening in the eye that light passes through is the
   a. conjunctiva.
   b. cornea.
   c. posterior chamber.
   d. pupil.
   e. anterior chamber.
2. The ciliary muscle controls the
   a. production of aqueous humor.
   b. movement of the eyeball.
   c. shape of the lens.
   d. amount of light reaching the retina.
   e. smoothness of the surface of the cornea.
3. The _____ is a connection between the middle ear and the nasopharynx.
   a. auditory tube
   b. auditory meatus
   c. membranous labyrinth
   d. bony labyrinth
4. Looking through the pupil with an ophthalmoscope you will see all of the following except
   a. optic disk.
   b. fovea centralis.
   c. optic chiasma.
   d. macula lutea.
5. The stapes sits in the _____ which opens into the _____.
   a. round window, cochlear duct
   b. oval window, scala vestibuli
   c. oval window, scala tympani
   d. oval window, cochlear duct
   e. round window, scala vestibuli
6. Receptors for hearing and equilibrium are found in the
   a. middle ear.
   b. endolymph.
   c. inner ear.
   d. outer ear.
   e. auditory lobe
7. The organ of Corti is located in the
   a. semicircular canal.
   b. utricle.
   c. saccule.
   d. middle ear.
   e. cochlear duct.
8. The ossicles connect the
   a. cochlea to the oval window.
   b. cochlea to the tympanic membrane.
   c. tympanic membrane to the round window.
   d. tympanic membrane to the oval window.
   e. oval window to the round window.
9. Vitamin A is essential in the proper operation of the
   a. rods
   b. iris
   c. conjunctiva
   d. cornea
   e. ciliary body
10. Changing the shape of the lens to correctly focus light on the retina is called
    a. refraction.
    b. accommodation.
    c. astigmatism.
    d. presbyopia.

<u>Fill-in-the-Blanks:</u> Complete the following statements. The answer may be a single word or a phrase.

1. The middle ear ossicles are the _____, the _____ and the _____.
2. The _____ and the _____ are involved in static equilibrium.
3. Vitamin A is essential in the proper operation of the _____.
4. The vitreous humor of the eye may be found between the _____ and the_____.
5. The _____ conducts impulses related to hearing and equilibrium to the _____ lobe of the cerebrum.
6. The Eustachian (auditory) tube leads from the _____ to the _____.

7. Sound vibrations are conducted from the stapes to the perilymph of the cochlea by the _____.
8. The process of accommodation is due to the _____.
9. The layer of the eye that contains the cornea is the _____.
10. The structure in the inner ear involved in hearing is the _____.
11. The process of refraction is due to the _____, the _____, the _____ and the _____.
12. The receptors for smell found in the nose and the receptors for taste on the tongue are _____.
13. The aqueous humor of the eye is found between the _____ and the _____.
14. Rods and cones are known as _____.
15. The part of the eye consisting of nervous tissue is the _____.
16. The _____ controls the amount of light entering the eye.
17. The nervous tissue in the cochlea is known as the _____,
18. The _____ controls the shape of the lens.
19. The _____ are involved in dynamic equilibrium.
20. The _____ conducts impulses related to vision to the _____ lobe of the cerebrum.
21. Olfactory receptors are found in the _____.
22. The area on the retina of the sharpest vision is the _____.

True or False

1. Each optic nerve contains fibers from both retinas.
2. Sensory receptors make it possible for the body to respond to stimuli caused by changes occurring in our external or internal environment.
3. The Eustachian tube connects the inner ear with the trachea.
4. The posterior cavity of the eye contains aqueous humor.
5. Because rhodopsin is less sensitive to light than the cone photopigments, brighter light is necessary for its breakdown.
6. Olfactory receptors and taste buds are chemoreceptors.
7. Nerve impulses responsible for the sensation of vision are carried in cranial nerve VIII.
8. The sense organs responsible for the sense of balance are located in the vestibule and cochlea.
9. Rhodopsin is a photopigment present in rods that is used for night vision.

Endocrine System

<u>Multiple choice</u>: Choose the single best answer

1. The pancreatic hormone that decreases blood glucose levels is _____.
   a. thyroid hormone
   b. insulin
   c. aldosterone
   d. calcitonin
   e. glucagon
2. Almost all amino acid-based or protein hormones exert their effects through intracellular
   a. deactivators.
   b. third messengers.
   c. receptors.
   d. second messengers.
3. The posterior pituitary (neurohypophysis) is not a true endocrine gland since
   a. it is actually part of the neural system due to its location.
   b. in the adult human it is no longer functional.
   c. it is does not produce the hormones that it releases, it is only a hormone storage area.
   d. it is strictly a part of the neural system and has little or nothing to do with hormonal release.
4. The secretions of the _____ are directly controlled by the hypothalamus.
   a. pituitary gland
   b. thyroid gland
   c. adrenal gland
   d. gonads
   e. mammary gland
5. Steroid hormones exert their effect by
   a. increasing blood pressure.
   b. initiating cAMP activity.
   c. stimulating the activation of an internal receptor
   d. entering the nucleus of a cell and initiating or altering the expression of a gene.
6. _____ is antagonistic to calcitonin.
   a. Insulin
   b. Parathyroid hormone
   c. Thyroid hormone
   d. Growth hormone
   e. Glucagon
7. Aldosterone
   a. is secreted by the neurohypophysis.
   b. functions to increase sodium reabsorption.
   c. secretion is normally activated by ACTH.
   d. functions to increase water reabsorption.
8. The adrenal cortex produces
   a. cortisol.
   b. norepinephrine.
   c. aldosterone.
   d. ACTH.
   e. cortisol and aldosterone.
9. An organ or tissue will only respond to a hormone if
   a. there is a membrane potential in the cells of the target organ.
   b. the location of the tissue or organ is within the circulatory path of the hormone.
   c. the tissue or organ has the appropriate receptors on the cells.
   d. the tissue or organ has nonspecific functions.
10. The parathyroid glands produce a hormone that
    a. decreases the level of calcium in the blood.
    b. increases the level of sodium ions in the blood.
    c. decreases the level of potassium ions in the blood.
    d. increases the level of calcium ions in the blood.

<u>Fill-in-the-Blanks:</u> Complete the following statements. The answer may be a single word or a phrase.

1. _____ acts as both a neurotransmitter and a hormone.
2. _____ hormones act by stimulating transcription.

3. The _____ gland may influence our day/night cycles.
4. The _____ gland declines in size and function with age.
5. A hormone produced by the pancreas that increases the blood sugar level is _____.
6. The target tissue of ACTH is the _____.
7. Calcitonin is produced by the _____.
8. Glucagon is antagonistic to _____.
9. The target tissue of FSH is the _____.
10. Oxytocin is produced by the _____.
11. When water needs to be conserved the _____ releases _____.
12. When sodium needs to be reabsorbed the _____ releases _____.
13. The renin-angiotensin mechanism controls the release of _____.
14. The target tissue of glucagon is the _____.
15. When blood glucose levels are high the _____ releases _____.
16. The target tissue of ADH is the _____.
17. When blood glucose levels are low the _____ releases _____.
18. For proper function the thyroid hormones require _____.
19. When blood calcium levels are low the _____ releases _____.
20. Aldosterone is produced by the _____.
21. When blood calcium levels are high the _____ releases _____.
22. The _____ gland releases hormones that control metabolic rate.
23. Calcitonin is antagonistic to _____.
24. The _____ enhances or extends the effect of the sympathetic nervous system.
25. _____ hormones usually act through a second messenger.

True or False

1. Most hormones are highly specific in their action.
2. Endocrine glands release their hormones into ducts that eventually empty into the circulatory system.
3. Both the endocrine and nervous systems exhibit control via regulatory feedback loops.
4. The "lock and key" mechanism allows hormones to bind only with target cells that have receptors that "fit" them exactly.
5. Tropic hormones tend to have a generalized effect on the body.
6. The neurohypophysis is the same as the anterior pituitary.
7. When the amount of antidiuretic hormone increases, the body tries to get rid of excess fluid, and the volume of urine increases.
8. Calcitonin decreases calcium storage in bones, raising blood calcium levels.
9. Aldosterone influences the kidney tubules to retain sodium and potassium ions.
10. The tissue of the pancreas is made up of both endocrine and exocrine tissues.
11. Insulin and glucagon exert antagonistic effects on blood levels of glucose.
12. Glucagon tends to promote the movement of glucose, amino acids, and fatty acids out the blood and into tissue cells.
13. In comparison to the nervous system, the regulatory effects of the endocrine system are rapidly apparent, but short lived.
14. Parathyroid hormone increases calcium absorption in the intestines by activating vitamin D.

Matching

Match the hormones with the descriptions. Hormones may be used more than once.

A.	antidiuretic hormone (ADH)	F.	insulin
B.	parathyroid hormone	G.	growth hormone
C.	adrenocorticotropic hormone (ACTH)	H.	thyroxine
D.	aldosterone	I.	oxytocin
E.	glucagon	J.	calcitonin

1. stimulates the release of glucocorticoids
2. promotes growth
3. promotes glycogenolysis and gluconeogenesis
4. stimulates growth and development of adrenal cortex
5. stimulates osteoclast activity & decreased excretion of calcium
6. stimulates glucose uptake by muscle and adipose tissue
7. controls the metabolic rate
8. causes water retention
9. stimulates osteoblast activity
10. promotes the reabsorption of sodium