Exam Review 5: Nervous System

- _____ is the process by which organisms keep internal 1. conditions relatively constant.
- This "balance" in the body is maintained by _____
- Environmental changes "feedback," or ______ the original stimulus.
 The nervous system ______ and _____ bodily functions by responding to internal and ______ stimuli.
- 5. There are three major types of neurons: 1) _____, which respond to heat, light, pressure, chemicals, etc. and carry impulses from the sense organs to the CNS; 2) _____, which carry impulses from the brain and spinal cord to the muscles and glands; and 3)

_____ which connect sensory and motor neurons.

- 6. In a neuron, ______ are short, branched extensions that carry impulses to the cell body.
- 7. The long, slender projection that carries impulses away from the cell body is
- called an _____. The ______ is a layer of lipids and proteins that insulate 8. The _____ the axons of some neurons in order to speed up transmission of nerve impulses.
- 9. The myelin sheath is not well developed at _____, and babies' movements are jerky and uncoordinated.
- 10. In a ______ neuron, the electrical charge is positive outside the cell, and _____ inside the cell.
- 11. When an impulse is received, _____ move across the cell membrane.
- 12. Protein pumps allow in more _____ ions, and change the charge inside the cell to _____ (temporarily).
- 13. This reversal of charges is known as an _____
- 14. The gap between cells across which the impulse must travel is known as the
- _____ are chemicals used to transmit the 15. impulse across the synapse.
- 16. The human nervous system is separated into two major divisions: the _____ and the
- 17. The brain is wrapped in a triple layer of connective tissue called the

Between these layers and the brain is the _____ which acts as a shock absorber and allows exchange of nutrients and waste. 19. The brain can be divided into several parts: the ______, which controls voluntary or conscious activities; the ______, which coordinates and balances actions of the muscles/involuntary actions; the _____, which connects the brain and spinal cord; the _____, which receives messages from sensory receptors, and the ______, which is the control centre for thirst, hunger, body temperature, etc. _____ connects the brain to the rest of the body 20. The _____

through 31 pairs of spinal nerves, and has the ability to process certain actions.

21. The peripheral nervous system refers to everything outside of the _____ and _____

22	. The PNS has two main parts:	the	nervous system, and	
	the n	iervous system.		
23	. The somatic nervous system c	oordinates	actions.	
24	. The autonomic nervous system	n coordinates	actions, and is	
	divided into the	and parasyl	npathetic nervous	
	systems.			
25	. The sympathetic and parasymp	oathetic systems have	2	
effects on the same organs.				
26	. The sympathetic system func	tions under stress by	the	
	heart rate,t	he pupils, and inhibiti	ng	
27	. The parasympathetic system b	rings things back to r	normal by	
	the heart rate		_ the pupils, and	
	stimulating	activity.		
28	. Symptoms of	disease includ	e impaired memory and	
	thinking, personality and behavi	ioral changes, and lan	guage deterioration.	
29	. In a person affected by	In a person affected by, seizures occur for long		
	periods of time, with no appare	eriods of time, with no apparent cause.		
30	. People suffering from		feel pain in the	
	nerves of the scalp and the mus	scles of the head and	neck.	
31.	. Destruction of the myelin she	ath which slows or blo	ocks nerve impulses	
	results in a condition known as			
32	cause	s tremors, stiffness o	or rigidity in the limbs,	
	slowness of movement, and impo	aired balance.		
33	. When a person suffers a	, brain cells	s die because of	
	inadequate blood flow.			
34	. In the human eye, light enters	s through the	, a tough,	
	transparent layer.			
35	. Light then passes through the	fluid-filled chamber	called the	
		·		
36	. Behind the aqueous humor is the, or the colored part of the eye.			
37. The is actually a small opening in the iris which			nich regulates the	
	amount of light entering the eye.			
38	. Behind the iris is the,	which can be adjuste	d by tiny muscles to	
	help the eye focus.			
39	. Behind the lens is the	, W	hich is the clear, jelly-	
	like fluid which fills the eye.			
40	. The lens focuses light onto the	e at the bo	ack of the eye.	
41.	Nerves which are sensitive to	light (or) on the	
	retina convert light energy into	nerve impulses.		
42	are sensitive to lig	ht, but do not disting	uish color.	
43	are less sensitive, but produce color vision.			
44. The passes through the back of the eye. Becau			ick of the eye. Because	
	there are no photoreceptors he	ere, a	is created.	
45. The eardrum, or, vibrates according to the sound waves				
	it receives.			
46	. Sound waves are transmitted t	to the inner ear, or	, by three	
	tiny bones.		1 I	
47	. The	monitor your boo	ly position and provide	
	your sense of balance.	.,		
48	. The senses of smell and taste	are provided by	/	
	which convert chemical energy	into nerve impulses.		