



BIOLOGY
REVISION SHEET
FINAL EXAM
TERM-II
GRADE 12
Session: 2018-19

Note: The students should first study from their textbook and then try to solve this revision sheet independently

Materials included in the exam:

CHAPTER 29

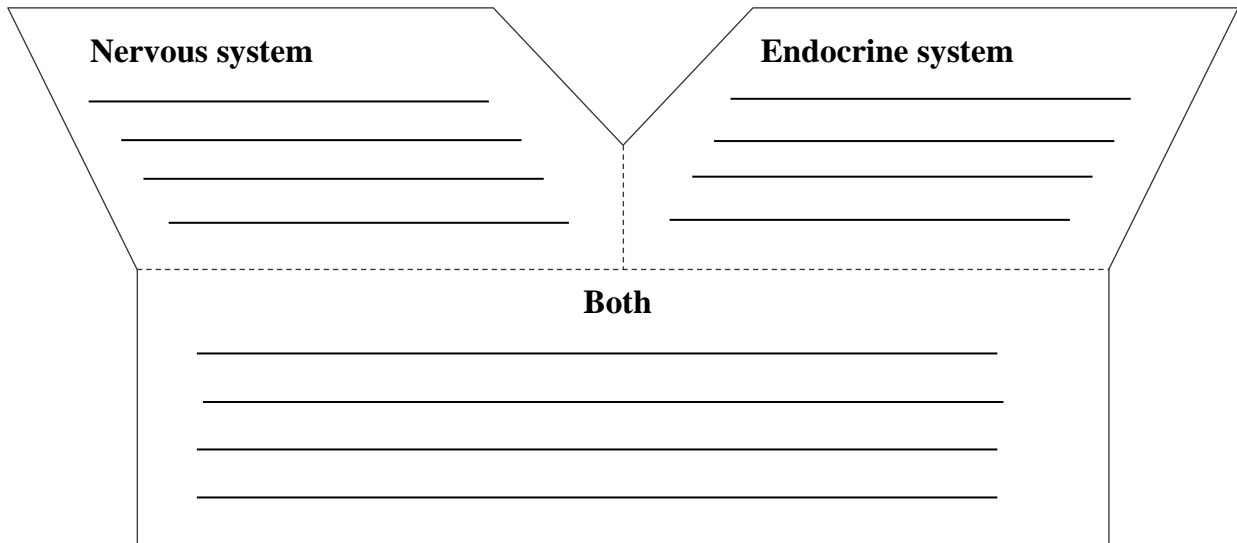
Sections: (29.1) (29.2) (29.3) & (29.4)

Textbook Pages:

Chapter 29: 818 - 834

Student Name:

Q1: Fill out the Y diagram below. In the top left, write the characteristics of the nervous system. In the top right, write the characteristics of the endocrine system. At the bottom, write the characteristics the two systems have in common. Support your answer with examples



Q2: Draw the change in charge that will occur:

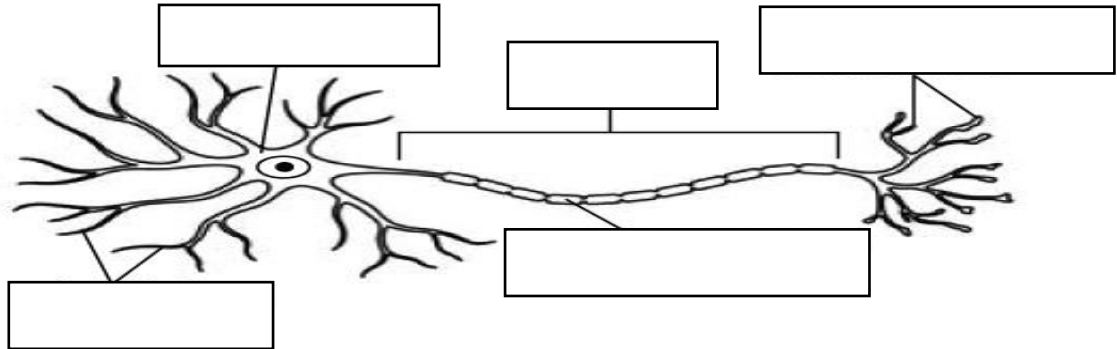
BEFORE a neuron is stimulated – at rest (resting potential)	Transmission WITHIN a neuron (action potential)	Transmission BETWEEN neurons (Neurotransmitters enter the synapse)

Q3: Fill the diagram:

Neuron is _____ _____		
1) Sensory neurons	2)	3)

Function:	Function:	Function: pass messages from the nervous system to other tissue in the body, such as muscles.
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Q4: Label the main parts of the neuron:



Q5: Fill the table about your senses:

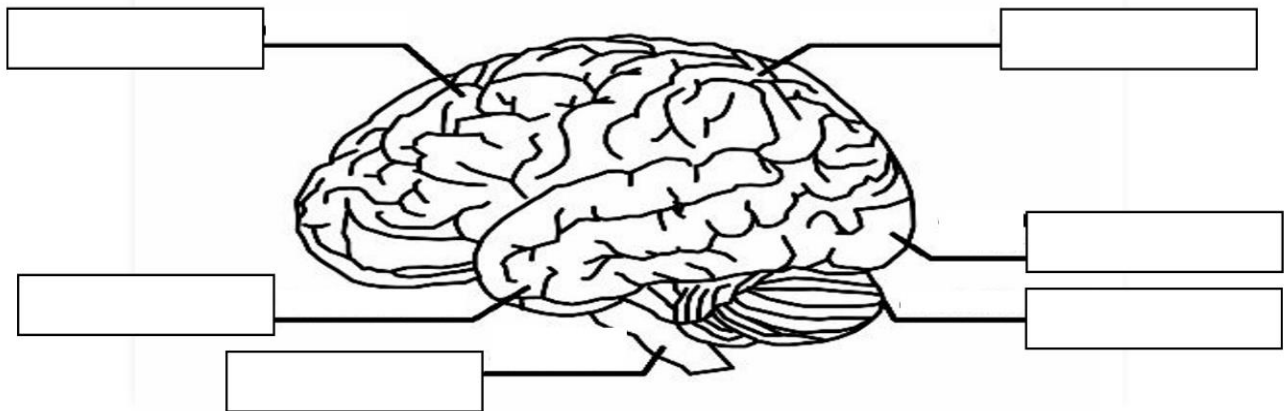
Senses and organs	Type of receptor and its name	Stimuli it detects and how it detect it?
<ul style="list-style-type: none"> • Sense: vision • Organ: Eye 		
	<ul style="list-style-type: none"> • Type of receptor: Mechanoreceptor • Name: Hair cells 	
	<ul style="list-style-type: none"> • Type of receptor: Chemoreceptor • Name: olfactory cell 	
		<ul style="list-style-type: none"> • Stimuli it detects: flavors. * How it detects? 1) Food molecules enter the mouth and touch the tongue. 2) These food molecules dissolved in saliva. 3) Taste buds detect flavors and generates an impulse. 4) Taste buds takes impulses to the brain to interpret it

<ul style="list-style-type: none"> • Sense: Touch • Organ: Skin 		
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Q6: Fill the table about Peripheral Nervous System (PNS):

Division of the PNS	Voluntary or Involuntary?	Examples of Tissues It stimulates
somatic nervous system		
	Involuntary	
sympathetic nervous system		
		Heart, lungs, arteries.

Q7: Label the central nervous system parts:



Q8: Fill the table with the function of central nervous system parts:

Central nervous system parts	Functions
Cerebrum	
Cerebellum	

Brain stem: - Midbrain - Pons - Medulla oblongata	
Spinal cord	

Q9: Answer the following questions briefly:

1. Why might be beneficial for a neuron to have more than one dendrite?

2. How does a neuron shape allow it to send signals across long distances?

3. What is stimulus?

4. What is threshold? How does a threshold prevent a neuron from generating too many action potential?

5. What is the difference between the function of an axon and a dendrite?

6. What is the role of the sodium-potassium pump?

7. What is the difference between resting potential and action potential?

8. What is the difference between central nervous system and peripheral nervous system?

9. What is homeostasis?

10. How do communication systems allow the body to maintain homeostasis?

12. How do the neurons of the CNS and PNS work together to produce response to stimuli?

13. What organs make up the central nervous system and peripheral nervous system?

14. What is the difference between voluntary and involuntary response? Give examples.

15. Are reflex arcs part of the somatic or autonomic nervous system? Explain.
