

PSY 315 PHYSIOLOGICAL PSYCHOLOGY

FALL 2020

DR. GROAT

MIDTERM OPEN BOOK ESSAY EXAM

READ EACH QUESTION CAREFULLY AND THEN GIVE A THOROUGH DISCUSSION OF THE TOPIC IN YOUR ANSWER. USE APA FORMAT FOR YOUR WORK. DO NOT USE INFORMATION FROM A SOURCE WITHOUT GIVING CREDIT TO THE SOURCE, INCLUDING THE TEXTBOOK. DO NOT COPY/PASTE YOUR ANSWERS. IF TURNITIN IDENTIFIES YOUR WORK AS SUBSTANTIALLY SIMILAR TO A SOURCE YOU WILL RECEIVE A ZERO ON THIS EXAM.

Chapter 1 Essay question: How do ions relate to neurons, membrane potential, and thoughts?

Chapter 2 Essay question: In the nervous system, there are both electrical synapses, which pass electrical signals quickly and directly between cells, and chemical synapse, which use a chemical message. What are the advantage and disadvantages of each?

Chapter 3 Essay question: The prefrontal lobotomy was widely used in the 1940s and 1950s. It was based on observations of one chimpanzee, whose behavior changed after receiving bilateral lesions to her prefrontal lobe. Largely on this evidence, doctors performed prefrontal lobotomies on human patients who suffered from psychiatric disorders to calm them down. There were side effects and this therapy often did not provide the expected benefits for the patients. What was wrong with the progression from a few primates to widespread use in humans? What questions should have been asked before the technique was used in people?

Chapter 4 essay question: damage to the brain will always have lasting effects, but the timing of the damage is important. At what times of life is brain damage more or less likely to have significant long-term effects? Describe some of the ways in which the brain can recover function following brain damage.

Chapter 5 Essay question: How do the different theories of color vision explain our perceptions? What are the differences between the theories?