



MACHAKOS UNIVERSITY

University Examinations for 2020/2122 Academic Year

SCHOOL OF HUMANITIES AND SOCIAL SCIENCES

DEPARTMENT OF SOCIAL SCIENCES

FIRST YEAR SPECIAL/SUPPLEMENTARY EXAMINATION FOR

BACHELOR OF ARTS (COUNSELLING PSYCHOLOGY)

BACHELOR OF EDUCATION ARTS

APS 107: INTRODUCTION TO BIOLOGICAL PSYCHOLOGY

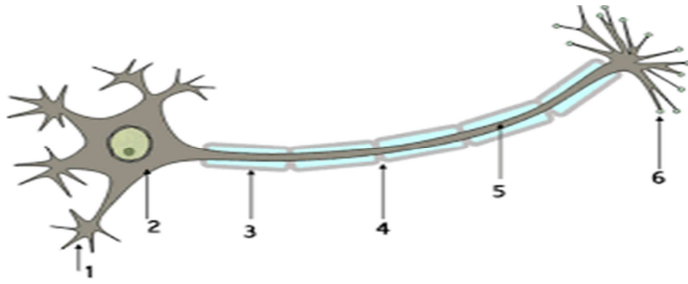
DATE: 26/8/2022

TIME: 8:30 – 10:30 AM

INSTRUCTIONS: Answer QUESTION ONE and any other TWO QUESTIONS.

QUESTION ONE (COMPULSORY) (30 MARKS)

- a) Define the following terms:
- i) Homeostasis (2 marks)
 - ii) Synapse (2 marks)
 - (iii) Biological psychology (2 marks)
- b) Distinguish between;
- i) Sensation and perception (2 marks)
 - ii) Short-term and long-term memory (2 marks)
 - iii) Sensory and peripheral nervous system (2 marks)
- c) State two components of emotions (2 marks)
- d) Identify three divisions of the hindbrain (3 marks)
- e) Outline two functional differences between sensory neurons and motor neurons. (2 marks)
- f) Mention the two major parts of the nervous system of the human body and their major structures. (5 marks)
- e) Label the following parts of a neuron (6 marks)



QUESTION TWO (20 MARKS)

- Discuss four general principles on the action of hormones. (8 marks)
- Describe four structural differences between axon and dendrites. (8 marks)
- Explain four mechanisms of drugs at the synapse (4 marks)

QUESTION THREE (20 MARKS)

- Describe the structural divisions of the peripheral nervous system, and state the function of each component. (8 marks)
- Discuss three ways of coping with stress. (6 marks)
- Explain three biological explanations of human behavior. (6 marks)

QUESTION FOUR (20 MARKS)

- Identify the four lobes of the cerebral cortex and the function of each lobe. (8 marks)
- Discuss James-Lange theory of emotion and give relevant examples. (8 marks)
- Discuss two general principles of sensory processing. (4 marks)

QUESTION FIVE (20 MARKS)

- Identify four neurotransmitters and the type (s) of behavior each influences. (8 marks)
- Discuss three components of emotion. (6 marks)
- Describe the events that occur during an action potential (6 marks)