



PAN AFRICA CHRISTIAN UNIVERSITY

SCHOOL OF HUMANITIES AND SOCIAL SCIENCES

**END OF SEMESTER EXAMINATION FOR THE DEGREE OF
BACHELOR OF ARTS IN COUNSELING PSYCHOLOGY**

SEPTEMBER-DECEMBER 2019

CAMPUS: ROYSAMBU

DEPARTMENT: COUNSELLING PSYCHOLOGY

COURSE CODE: COU3423

COURSE TITLE: BRAIN AND BEHAVIOUR

EXAM DATE: TUESDAY 3RD DECEMBER 2019

DURATION: 2 HOURS

TIME: 2:00PM-4:00PM

INSTRUCTIONS

- Read the instructions and questions carefully before you write the answers.
- Write your **STUDENT NUMBER** in the Answer Booklet given
- *Write clearly and legibly.*
- This exam script consists of **Six (6)** questions.
- Answer ALL **questions in Section A** and **Any other three (3)** questions from Section B
- *ALL PAC University's examination rules and regulations apply*

Section A: Answer all the questions (30mks)

1. a) Differentiate between: afferent and efferent neurons. (2mks).
- b) Illustrate the composition of the nervous system. (4mks).
- c) i. Draw and label a typical neuron cell. (4mks).
- ii. Explain how a neuron acquires action potential. (4mks)
- d) Discuss any eating disorder in relation to the brain. (4mks)
- e) Discuss the role of the nervous system in sexual behavior. (4mks).
- f. Discuss any two biological factors that determine the level of alcohol intoxication. (4mks).
- g. Elaborate on the possible brain regions affected in the two demon possessed men healed by Jesus in the region of Gadarenes (Matt, 8:28-30). (2mks)

Section B: Answer any three Questions (30mks)

2. Identifying possible behavioral difficulties when the following parts of the brain are destroyed:
- a) amygdala (2mks)
- b) hypothalamus (2mks)
- c) corpus callosum, (2mks)
- d) cerebellar vermis (2mks)
- e) Corpus Collosum (2mks)
3. a) Describe how neural impulses pass from one neuron to the other. (6mks)
- b) Discuss the “gate control theory” of pain. (4mks)
- 4.a) Explain the terms: i) Depolarization ii) hyper polarization of neurons. (6mks)
- b) Describe the neural factor theory of sleep. (4mks).
5. a) Describe the characteristics of frontal lobe syndrome. (4mks).
- b) Analyze the impact of repeated use of drugs on the brain. (6mks).
6. a) Discuss the biological basis of intoxication. (4mks)
- b) Discuss any three characteristics of paradoxical sleep. (6mks)