



GRETSA UNIVERSITY - THIKA

UNIVERSITY EXAMINATIONS JANUARY – APRIL 2019 SEMESTER

FOUNDATION CERTIFICATE IN HEALTH SCIENCES

COURSE CODE: GUBC 012

COURSE TITLE: BRIDGING IN BIOLOGY

DATE: 11 APRIL 2019

TIME: 11.30 AM – 1.30 PM

INSTRUCTIONS TO CANDIDATES

1. SECTION A IS **COMPULSORY**.
2. SECTION B: ANSWER ANY OTHER **THREE** QUESTIONS.
3. **DO NOT** WRITE ANYTHING ON THIS QUESTION PAPER AS IT WILL BE AN EXAM IRREGULARITY.
4. ALL ROUGH WORK SHOULD BE AT THE BACK OF YOUR ANSWER BOOKLET AND CROSSED OUT.

CAUTION: *All exam rooms are under CCTV surveillance during the examination period.*

SECTION A: COMPULSORY

MULTIPLE CHOICES QUESTIONS

[ONE MARK EACH]

1. Which of the following is not a branch of Biology
 - A. zoology
 - B. Ichthology
 - C. entomology
 - D. oology
2. Which of the following are characteristics of living thing except?
 - A. nutrition
 - B. Reproduction
 - C. respiration
 - D. locomotion
3. The following are external features of animals used in classification. Which one is not?
 - A. Tentacles in hydra
 - B. Body covering- feathers, scales, hair or fur
 - C. Proglotids in tapeworms
 - D. The rhizoids as in moss
4. The following kingdoms of living organisms are well matched except?
 - A. Kingdom Monera-Amoeba
 - B. Kingdom Protoctista-Protozoa
 - C. Kingdom Fungi-Bacteria
 - D. Kingdom Plantae-hibiscus
5. Which of the following is not correctly matched?
 - A. Maize- *Zea mays*
 - B. Leopard- *Panthera leo*
 - C. Domestic dog- *Canis familiaris*
 - D. Human being- *Homo sapiens*

SHORT ANSWER QUESTIONS: (ANSWER ALL QUESTIONS IN THIS SECTION)

1. Outline four importance of classification of living organisms [4 marks]
2. Define the following branches of biology
 - a) Ornithology [1 mark]
 - b) Physiology [1 mark]
 - c) Ecology [1 mark]
3. Outline the precautions during collection an examination of specimen [4 marks]
4. Highlight the procedure of using a magnifying lens [5 marks]
5. Outline five differences between plant cells and animal cells [5 marks]
6. Highlight four parts of a microscope and their use [4 marks]
7. Draw a well labelled diagram of a microscope [5 marks]
8. Citing various examples describe cell specialization [5 marks]

SECTION B

[CHOOSE ANY THREE QUESTIONS]

1.
 - a) Describe the process of diffusion [10 marks]
 - b) Explain the role of diffusion in living organisms [10 marks]
2.
 - a) Explain the care and use of a microscope (10 marks)
 - b) By the aid of a diagram explain various cell organelles [10 marks]
- a) Describe 5 types of animal tissues and 5 plant tissues [10 marks]
 - b) Compare the organs found in plants and those found in animals [10 marks]
3.
 - a) Discuss the process of osmosis in living organisms [10marks]
 - b) Explain the role of osmosis in living organisms [10 marks]
4.
 - a) Discuss with examples the apparatus used for specimen collection [10 marks]
 - b) Explain the importance of studying biology [10 marks]