



OFFICE OF THE DEPUTY PRINCIPAL
ACADEMICS, RESEARCH AND STUDENTS' AFFAIRS

UNIVERSITY EXAMINATIONS

2018/2019 ACADEMIC YEAR

SECOND YEAR SECOND SEMESTER PART-TIME EXAMINATION

**FOR THE DEGREE OF BACHELOR OF
EDUCATION (SCIENCE)**

COURSE CODE: CIM 221

COURSE TITLE: BIOLOGY EDUCATION

DATE: 26TH APRIL, 2019

TIME: 2.00 PM – 5.00 PM

INSTRUCTION TO CANDIDATES

- SEE INSIDE

THIS PAPER CONSISTS OF 3 PRINTED PAGES

PLEASE TURN OVER

CIM 221: BIOLOGY EDUCATION**STREAM: BED (Science)****DURATION: 3 Hours****INSTRUCTIONS TO CANDIDATES**

- i. *Answer Question ONE and any other TWO questions.*
- ii. *Do not write on the question paper.*

Question One

- a) Differentiate between science and science education. (4 Marks)
- b) What is meant by nature of science? (2 Marks)
- c) What are the five major tenets of the nature of science? (5 Marks)
- d) Describe the science process. (8 Marks)
- e) Explain the integrated science process skills in biology (11 Marks)

Question Two

- a) Explain four characteristics of philosophy of science? (8 Marks)
- b) Explain four major learning philosophies. (12 Marks)

Question Three

- a) Explain five qualities of a modern laboratory (10 Marks)
- b) Describe the preparation and the use of the following laboratory reagents in biology
 - i. Biuret's reagent
 - ii. Iodine solution
 - iii. Benedict's solution (10 Marks)

Question Four

- a) Explain the following teaching approaches in biology

- i. Class experiment
 - ii. Demonstration
 - iii. Project work (12 Marks)
- b) What is the importance of improvisation in biology (4 Marks)
- c) Explain four safety precautions in the laboratory. (4 Marks)

Question Five

- a) Outline four methods in which practicals in biology can be assessed. (4 Marks)
- b) Highlight the six levels of Blooms theory in the assessment of biology. (6 Marks)
- c) Explain the three types of assessment in biology. (6 Marks)
- d) Explain the importance of assessment in biology. (4 Marks)
