



OFFICE OF THE DEPUTY PRINCIPAL  
ACADEMICS, RESEARCH AND STUDENT AFFAIRS

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# UNIVERSITY EXAMINATIONS 2019/2020 ACADEMIC YEAR

THIRD YEAR FIRST SEMESTER REGULAR EXAMINATION

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

**COURSE CODE: CIM 321**

**COURSE TITLE: BIOLOGY EDUCATION II**



**DATE: 10<sup>th</sup> DECEMBER 2019**

**TIME: 9.00 AM - 12.00 PM**

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**INSTRUCTION TO CANDIDATES**

- SEE INSIDE

**THIS PAPER CONSISTS OF 3 PRINTED PAGES**

**PLEASE TURN OVER**

**CIM321: BIOLOGY EDUCATION II**

**STREAM: BED (SCIENCE)**

**DURATION: 3 Hours**

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**INSTRUCTIONS TO CANDIDATES**

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

**Question 1**

- a. Explain FOUR ways in which biology has contributed positively to the welfare of humankind (4Marks)
  
- b. Identify SIX positive attitudes that should be developed in students through learning biology. (6 Marks)
  
- c. (i) Differentiate between expository and inquiry approach of teaching biology (2 Marks)
  
- (ii) Highlight the advantages and disadvantages of guided inquiry-based approach of teaching biology (4Marks)
  
- d. Explain THREE factors to be considered when putting up a biology laboratory (3Marks)
  
- e. Give considerations to be made when sequencing topics in a scheme of work (3 Marks)
  
- f. Explain the importance of the following facilities in the teaching of biology (3 Marks)
  - (i) Vivarium
  - (ii) Aquarium
  - (iii) Herbarium
  
- g. Outline FOUR factors to be considered when locating a biology laboratory (4 Marks)

**Question Two**

- a. What is meant by the following documents in preparation for biology teaching
- (i) Syllabus (4 Marks)
  - (ii) Schemes of work (3 Marks)
  - (iii) Lesson plan (3 Marks)
- b. Explain five principles that guide the selection of content in a syllabus (10 Marks)

**Question Three**

Outline the aims of the following projects in the historical development of biology curriculum in Kenya

- a. Biological Science Curriculum Study (5 Marks)
- b. Nuffield Science Project (6 Marks)
- c. UNESCO Pilot Project (9 Marks)

**Question Four**

- a. Differentiate between a teaching approach and teaching method in biology (2 Marks)
- b. Explain THREE advantages and three disadvantages of each of the following methods of teaching in biology
- (i) Lecture method (6Marks)
  - (ii) Demonstration method (6 Marks)
  - (iii) Practical method (6Marks)

**Question Five**

- a. Explain FIVE criteria that a teacher of biology should consider when selecting biology text books (10 Marks)
- b. (i) Differentiate between the terms assessment and evaluation (2 Marks)
- (ii) Explain FOUR considerations a biology teacher should put in mind when preparing a practical examination. (8 Marks)

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