

**MAASAI MARA UNIVERSITY**

**REGULAR UNIVERSITY EXAMINATIONS**

**2018/2019 ACADEMIC YEAR**

**THIRD YEAR FIRST SEMESTER**

**SCHOOL OF EDUCATION**

**BACHELOR OF EDUCATION**

**COURSE CODE: ECI 3119**

**COURSE TITLE: SPECIAL METHODS IN BIOLOGY**

**DATE: 14TH DECEMBER, 2018 TIME: 1430 – 1630 HRS**

**INSTRUCTION TO CANDIDATES**

This paper has two sections A & B.

Answerquestion one in **section A** and **any TWO** in **section B.**

**SECTION A (30marks).**

**QUESTION 1.**

(a) Describe the **THREE** components of a balance science curriculum that should be emphasized in the teaching and learning of biology. (3mks)

(b) Identify **THREE** negative contributions/effects of biological knowledge and skills towards human welfare. (3mks)

c) (i) Distinguish between a lesson plan and schemes of work. (2mks)

(ii) State the importance of a lesson plan to a biology teacher. (3mks

(d) List **THREE** factors that a biology teacher needs to consider when preparing a test. (3mks)

(e) Explain **THREE** benefits of using lecture method in the teaching and learning of biology. (3mks)

(f) Highlight **three** reasons for improvisation in biology teaching. (3mks)

(g) Explain **FIVE** factors that a biology teacher needs to consider when selecting textbooks as resource material for teaching biology. (10mks)

**SECTION B ANSWER ANY TWO QUESTIONS (40MKS)**

**QUESTION 2.**

(a) Explain **five** benefits of using demonstration method in the teaching and learning of biology. (10mks)

(b) Explain **five** contributions of concept mapping to teaching of biology in secondary schools. (10mks)

**QUESTION 3.**

(a) Explain **FIVE** ways in which biology knowledge has been misused by mankind. (10mks)

(b) (i) State **THREE** qualities of an instructional or specific objective. (3mks)

(ii) Based on the qualities stated in (b) (i) above analyze the objective below and identify the short comings. (2mks)

***“The lesson is for the learners to understand factors which affect the rate of diffusion”***

(d) Briefly explain **FIVE** goals of education in Kenya. (5mks)

**QUESTION 4**

(a) Using the following fields/areas discuss the application of biological knowledge and skills in National development. (12mks)

* Industry
* Agriculture
* Conservation
* Population control

(b) Explain **FOUR** ways in which the static view of science influences science teaching. (8mks)

**QUESTION FIVE**

a). outline the procedure followed when preparing biology scheme of work     (10 marks)

b). highlight five ways in which the static view of science influences science teaching (10 marks)

**//END**