

CHUKA



UNIVERSITY

UNIVERSITY EXAMINATIONS

EXAMINATION FOR THE AWARD OF MASTER DEGREE IN SCIENCE EDUCATION

EDCI 817: BIOLOGY EDUCATION

STREAMS: SCHOOL BASED

TIME: 2 HOURS

DAY/DATE: WEDNESDAY 21 /07/ 2021

2.30 PM – 5.30 PM

INSTRUCTIONS:

- Answer Any Three questions.
- Do not write anything on the question paper.

1. (a) Explain the contribution of biological knowledge and skills in the following fields.
 - (i) Medicine [7 Marks]
 - (ii) Industry [5 Marks]
 - (b) Explain the specific purposes for science instruction in schools. [8 Marks]
2. (a) Using specific examples, outline the classification of teaching materials in biology. [6 Marks]
 - (b) Examine the significance of improvisation in teaching biology. [4 Marks]
 - (c) Explain **five** qualities of a good biology textbook. [10 Marks]
3. (a) Explain **four** rules in a biology laboratory. [4 Marks]
 - (b) Describe **four** types of biohazards likely to occur in a biology laboratory stating the precautionary measures to prevent them from occurring. [8 Marks]

- (c) Explain the guided inquiry approach in teaching biology highlighting its significance and limitations. [8 Marks]
4. (a) Explain the aim of the UNESCO pilot project (1967) in relation to biology teaching stating clearly the challenges the project faced. [10 Marks]
- (b) (i) Explain cooperative learning in teaching biology. [2 Marks]
(ii) Explain **four** characteristics of cooperative learning. [8 Marks]
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