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University Examinations 2022/2023

FIRST YEAR SECOND SEMESTER EXAMINATION FOR POST GRADUATE DIPLOMA
IN EDUCATION

ECG 4154: METHODS OF TEACHING BIOLOGY

DATE: APRIL 2023

TIME: 2 HOURS

INSTRUCTIONS: Answer question *one* and any other *two* questions

QUESTION ONE (30 MARKS)

- a) You have been posted as a new and the first biology teacher in a young school in Marsabit county. Noting that the school has no science laboratory, you have had a lengthy talk with the principal to explore the possibility of putting up the facility. The head teacher is not convinced on the value this project
- i. Write a clear justification to convince the principal on the critical need for a laboratory in the teaching/learning of biology (4 marks)
 - ii. Identify and explain four key components that must be included in the design of the biology laboratory (4 marks)
 - iii. Identify and explain four function of the key basic resource and facilitate that must be put in place to have a functional biology lab (3 marks)
 - iv. Discuss the hazard controls that you of teacher made tests used in evaluation of the teaching/ learning process in biology (4 marks)

- b) Identify and explain four types of teacher made tests used in evaluation of teaching /learning process in biology (4 marks)
- c) Improvisation is an important daily practice for a biology teacher. Discuss three factors you would consider in selecting an effective resource for teaching/learning of biology (6 marks)

QUESTION TWO (12 MARKS)

- a) You are the form 3 W biology teacher and your timetable shows you have a double lesson on Tuesday the third May starting from 9.30 am. Make a practical lesson plan on a topic of your choice (6 marks)
- b) Explain your role during the lesson at each of the following steps
- i. Planning stage (2 marks)
 - ii. Lesson implementations stage (2 marks)
 - iii. Lesson conclusion and termination stage (2 marks)

QUESTION THREE (12 MARKS)

- a) Your biology scheme of work indicate that you are supposed to organize and take your form 3N for a biology excursion to Meru National park on an ecology study. Discuss how you manage the activity at the following steps
- i. Planning in the school (2 marks)
 - ii. Planning with the park officials (2 marks)
 - iii. Implantation of activity in the park (2 marks)
 - iv. Completion of the excursion (2 marks)
- b) Identify and explain four importance of a scheme of work in planning teaching of biology (4 marks)

QUESTION FOUR (12 MARKS)

- a) Discuss any advantages of expository teaching approach over the experimental approach
(6 marks)
- b) Discuss how you would apply ASEI/PDSI in your biology lessons to improve your students' performance
(6 marks)

QUESTION FIVE (12 MARKS)

- a) Discuss five reasons why it is important to teach biology in secondary school
(5 marks)
- b) Examine three importance of evaluation in a classroom situation
(7 marks)