

Uganda Martyrs University
FACULTY OF EDUCATION
POSTGRADUATE DIPLOMA IN EDUCATION
SEMESTER TWO EXAMINATIONS, 2023/24
PGBM 1209: BIOLOGY TEACHING METHODS

DATE: Friday 24/05/2024

Time: 2:00 pm-5:00 pm

Instructions:

- Follow instructions on this question paper and answer booklet carefully.
 - Do not write anything on this question paper.
 - Question One (Section A) is compulsory; choose three questions from Section B, totalling to four questions.
 - Begin each selected question on a new page in the answer booklet.
 - Standard academic writing and grammatically correct English is expected.
 - Each question carries a total of 25 marks
-

SECTION A: COMPULSORY QUESTION

1. Some students guessed that a certain type of seed requires light to germinate.
- (a) How would you guide the students to state a hypothesis to test this assumption? (2 marks)
- (b) Describe step by step, an experiment you would carry out with the students to examine the validity of the stated hypothesis. (10 marks)
- (c) Describe three roles a science teacher needs to adopt to develop prediction among students during this experiment. (13 marks)

SECTION B: Attempt any THREE Questions

2. (a) Differentiate between co-curricular and extra-curricular science activities. (5 marks)
- (b) Describe three co-curricular science activities that can be conducted with biology students. (20 marks)
3. (a) Suggest one lively topic for debate in a biology lesson, and argue for and against it. (20 marks)
- (b) Suppose that you are given the role of a judge, make your professional verdict about the motion concisely, basing on the arguments that you have presented. (5 marks)

4. To what extent can you as a biology teacher, contribute to promoting a sense of self discipline, ethical values, spiritual values, responsibility and initiative among secondary school students? (25 marks)

5. (a) Describe the characteristics of hardworking learners in a biology class. (12 marks)

(b) Illustrate three ways by which you can contribute to the development of hard work as a scientific attitude among your students. (13 marks)

6. *"The curriculum review also aimed at reducing the content overload and contact hours in the classroom so as to create time for research and project work, talent development and creativity, emerging fields of knowledge across all subjects and doing away with obsolete information".*

(a) Explain the meaning of science project work. (5 marks)

(b) Design a Senior One biology project aimed at investigating whether crop growth is different in different soil types. (13 marks)

(c) List down the elements of a Senior One project report. (7 marks)

END