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(Knowledge for Development)

KIBABII UNIVERSITY

**UNIVERSITY EXAMINATIONS
2021/2022 ACADEMIC YEAR
FIRST YEAR FIRST SEMESTER
MAIN EXAMINATION
FOR THE DEGREE OF BED (SC)**

COURSE CODE: ESM 725e

COURSE TITLE: BIOLOGICAL SCIENCES EDUCATION

DATE: 16/05/22

TIME: 9:00 AM - 11:00 PM

INSTRUCTIONS TO CANDIDATES

Answer Question One and Any other TWO (2) Questions

TIME: 2 Hours

This Paper Consists of 2 Printed Pages. Please Turn Over. ►

Question One (30 marks)

- a) In what **three** ways is biological knowledge useful to the welfare of human beings? (6 marks)
- b) Discuss **three** misuse of biological knowledge (6 marks)
- c) State any **three** attitudes that biology students should learn (6 marks)
- d) State **four** objectives for teaching secondary school biology in Kenya (4 marks)
- e) Outline **five** factors that determine the choice of a particular teaching method in biology (5 marks)
- f) List **three** advantages of field trips in the teaching of biology? (3 marks)

Question Two (20 marks)

- a) State **five** values of projects in the teaching and learning of secondary school biology (10 marks)
- b) Outline **THREE** disadvantages of project work (4 marks)
- c) Briefly discuss **three** problems that may be expected in using projects in the teaching and learning of biology (5 marks)

Question Three (20 marks)

- a) Define schemes of work (2 marks)
- b) State **four** factors to consider when making a biology schemes of work (4 marks).
- c) Discuss the essentials of a biology lesson plan (14 marks)

Question Four (20 marks)

- a) Discuss **four** factors that a biology teacher must consider when preparing and storing laboratory reagents (8 marks).
- b) Discuss **six** factors that a biology teacher needs to consider when planning for a chart for teaching purposes (12 marks).

Question 5 (20 marks)

Discuss the role of a biology teacher in the management of the biology laboratory