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**KIBABII UNIVERSITY**  
**DEPARTMENT OF CURRICULUM AND PEDAGOGY**  
**SPECIAL/SUPPLEMENTARY EXAMINATION**  
**2022/2023 ACADEMIC YEAR**  
**COURSE CODE: ESM725E COURSE TITLE: BIOLOGICAL**  
**SCIENCES EDUCATION**

**DATE...14/11/2022.....**

**TIME...11:00AM**

**VENUE: ABB211**

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**INSTRUCTIONS TO CANDIDATES**

Answer **THREE** questions: Question **ONE** and any other **TWO**

TIME: 2 Hours

The university observes **ZERO** tolerance to examination cheating.

*This paper consists of 3 printed pages. Please turn over.*

### QUESTION ONE (30 MARKS)

- a) Briefly discuss the use of biological knowledge in human health (3 mks)
- b) List **three** professional documents that are required in planning for the teaching (3 mks).
- c) State **four** reasons why Biology teachers are encouraged to apply questioning method in their teaching (4 mks)
- d) Why is it advisable for teachers of Biology to use visual aids in the teaching of scientific concepts) (4 mks)
- e) Explain **two** limitation of specimens in the teaching of Biology (4 mks)
- f) State **three** environmental considerations when planning for the siting of a Biology laboratory (6 mks)
- g) Why is it advisable to store heavy items on shelves close to the ground in the Biology laboratory? ( 2 mks)
  
- h) Outline four purposes of Biology assessment at class and in the national examinations (4 mks)

### QUESTION TWO (20 MARKS)

- a) Describe **five** ways of improving the lecture method of teaching. (10mks)
- b) Outline **five** ways of motivating learners in the teaching of biology. (10mks)

### QUESTION THREE (20 MARKS)

- a) List **five** material resources for teaching Biology. (5mks)
- b) Describe **five** factors that hinder effective use of resources in teaching Biology. (5mks)
- c) Explain **five** factors to consider when selecting a realia for teaching purposes. (10mks)

### QUESTION FOUR (20 MARKS)

- a) Describe **five** attitudes that a Biology student should acquire in the learning of biology. (10mks)

- b) Briefly discuss **five** skills that secondary school students acquire from Biology practical lessons. (10mks)

**QUESTION FIVE (20 MARKS)**

- a) Prepare a sample scheme of work format (10 mks).  
b) Briefly describe the components of a biology lesson plan. (8mks)