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**GARISSA UNIVERSITY**

**UNIVERSITY EXAMINATION 2020/2021 ACADEMIC YEAR TWO**

**SECOND SEMESTER EXAMINATION**

**SCHOOL OF EDUCATION, ARTS AND SOCIAL SCIENCES**

**FOR THE DEGREE OF BACHELOR OF EDUCATION (ARTS)**

**COURSE CODE: EDB 211**

**COURSE TITLE: SPECIAL METHODS IN BIOLOGY 1.**

**EXAMINATION DURATION: 2 HOURS**

**DATE: 07/10/2021 TIME: 09.00-11.00 AM**

**INSTRUCTION TO CANDIDATES**

* **The examination has FIVE (5) questions**
* **Question ONE (1) is COMPULSORY**
* **Choose any other TWO (2) questions from the remaining FOUR (4) questions**
* **Use sketch diagrams to illustrate your answer whenever necessary**
* **Do not carry mobile phones or any other written materials in examination room**
* **Do not write on this paper**

**This paper consists of TWO (2) printed pages *please turn over***

**QUESTION ONE (COMPULSORY)**

1. Define the following terms.
2. Scientific process skills
3. Hypothesis
4. Philosophy of science                                               (3marks)
5. State THREE major areas of modern biology laboratory (3marks)
6. Describe   any three hazards that students may face in the biology lab and explain the safety precautions that you could take to avoid such hazard (6marks)
7. Explain the strength and limitations of using project method in teaching biology. (6marks)
8. Explain three considerations that biology teacher would make before preparing schemes of work.                                                                                  (6marks)
9. What measures would you take if acid spilled on the skin of a student during a practical lesson                                                                                       (2marks)
10. Describe two factors you would consider when selecting an instructional method  (4marks)

**QUESTIONTWO**

1. Discuss the following philosophy in science stating its tenets and proponents (10marks)
2. Empirism
3. Rationalism
4. Discuss five any Core competencies the CBC seeks to equip with senior school learners 10mrks

**QUESTION THREE**

1. Explain four benefits of using demonstration method in the teaching/ learning biology (8marks)
2. State four characteristics of instructional objectives   (8marks)
3. Analyze the objective below, identify the shortcomings and rewrite it correctly.

**“ The lesson is for learners to understand how the leaf is adapted to its function”**  (4marks)

 **QUESTION FOUR**

1. As a biology teacher, identify and explain   any three necessary attitudes to be developed in learners when teaching biology                                                           (6marks)
2. Write a forty minutes lesson plan indicating relevant teaching and learning resources  (9marks)
3. Mention four professional records kept by a biology teacher   (4marks)

**QUESTION FIVE**

Explain your role as the subject teacher in field trip under the following areas.

1. Essential preparations before the visit
2. The role of the teacher during the visit
3. Follow up work after the trip