



# **MAASAI MARA UNIVERSITY**

**REGULAR UNIVERSITY EXAMINATIONS**

**2017/2018 ACADEMIC YEAR**

**THIRD YEAR SECOND SEMESTER**

**SCHOOL OF EDUCATION**

**B. ED (SCIENCE)**

**COURSE CODE: CIM 321**

**COURSE TITLE: SPECIAL METHODS IN BIOLOGY**

**DATE: 26/4/2018**

**TIME : 1100-1300HRS**

---

**INSTRUCTIONS TO CANDIDATES**

- Question **ONE** is compulsory
- Answer any other **TWO** questions

### **QUESTION ONE (Compulsory)**

- a) Giving five specific examples, explain how Cognitivists and Constructivists Epistemologies have influenced Biology teaching approaches. **(10 Marks)**
- b) A group of Form Two students designed and experiment to investigate factors affecting the rate of transpiration. Giving examples from the experiment, explain the concept of “fair testing”. **(10 Marks)**
- c) Briefly describe a “mind map” and explain four situations when a Biology teacher can use a mind map during teaching. **(10 Marks)**
- d) Explain five ways a biology teacher should use to help her/his students to think more deeply and improve the quality of their responses to the teachers’ questions in a biology lesson. **(10 Marks)**

### **QUESTION TWO**

- a) A Biology teacher was teaching the topic “Cell Structure” in a form one class. Prepare a 40 minutes lesson plan to enable the teacher conduct a successful lesson. **(10 Marks)**
- a) Briefly outline and describe five relevant publications that the teacher would use to reinforce his/her teaching in (2a) above. **(10 Marks)**

### **QUESTION THREE**

- a) Briefly explain five reasons to justify the use of Scheme Work in planning for instruction. **(10 Marks)**
- b) A biology teacher was planning a group work session for her class as a way of promoting learner participation. Guide the teacher by giving five (5) points on what to do before starting the group work session. **(10 Marks)**

### **QUESTION FOUR**

- a) A Biology teacher was planning to use a Public Health Officer from the local Hospital to speak to her Form Two students about communicable diseases. Explain 5 considerations that the teacher should do before inviting the Officer. **(10 Marks)**
- b) Discuss five factors that dictate the choice of a teaching approach in Biology. **(10 Marks)**

### **QUESTION FIVE**

- a) A school in your home area received a donation to construct a Biology laboratory. Advise them on five factors they have to consider when planning the layout of the laboratory. **(10 Marks)**
- b) Briefly explain five critical responsibilities to be assigned to the laboratory technician in (5a) above once the project is completed. **(10 Marks)**

**END//**