



## **GARISSA UNIVERSITY**

**UNIVERSITY EXAMINATION 2017/2018 ACADEMIC YEAR TWO  
SECOND SEMESTER EXAMINATION**

**SCHOOL OF EDUCATION AND SOCIAL SCIENCES**

**FOR THE DEGREE OF BACHELOR OF EDUCATION**

**COURSE CODE: EDS 211**

**COURSE TITLE: SPECIAL METHODS IN CHEMISTRY**

**EXAMINATION DURATION: 3 HOURS**

**DATE: 10/04/18**

**TIME: 08.00-11.00 AM**

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### **INSTRUCTION TO CANDIDATES**

- The examination has **SIX (6)** questions
- Question **ONE (1)** is **COMPULSORY**
- Choose any other **THREE (3)** questions from the remaining **FIVE (5)** 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)

- (a) Define:
- i. science
  - ii. Philosophy of science
  - iii. laboratory [3 marks]
- (b) State the objectives of teaching science in secondary schools [3 marks]
- (c) Distinguish between the static and dynamic approaches to teaching science [4 marks]
- (d) State and explain three types of questions in science [3 marks]
- (e) State three advantages of using improvised laboratory apparatus [3 marks]
- (f) Outline the **laboratory management** in chemistry [6 marks]
- (g) State Three characteristics of good science teacher [3 marks]

### QUESTION TWO

- (a) Discuss the behaviorism and constructivism theories of learning and how does these theories help in promoting learning and educators view of learning with respect to both theories. [10 marks]
- (b) State five activities that teachers can use to develop science skills [5 marks]

### QUESTION THREE

- (a) Describe how the teacher could encourage the development of the attitude in the learners [4 marks]
- (b) State three advantages of doing practical's during Science lessons. [3 marks]
- (c) Explain Two ways by which learners can be made to appreciate the contributions of chemistry knowledge to the welfare of mankind [2 marks]
- (d) Describe the nature of science and state main ideas regarding the nature of science [6 marks]

### QUESTION FOUR

- (a) Describe the qualities of the modern science laboratory. [8 marks]
- (b) State 4 Significance of school laboratory [4 marks]
- (c) How would you ensure that the conduct of any school level practical is hands on [3 marks]

### QUESTION FIVE

The major threats to the present day civilization are population, explosions, hunger, and diseases, environmental pollution, depletion of sources of energy. The growth of population is probably greatest problems facing us. Discuss how you would solve these pressing problems using chemistry [15 marks]

