



THE CATHOLIC UNIVERSITY OF EASTERN AFRICA

A. M. E. C. E. A

MAIN EXAMINATION

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AUGUST - DECEMBER 2015 TRIMESTER

FACULTY OF EDUCATION

DEPARTMENT OF UNDERGRADUATE STUDIES IN EDUCATION

REGULAR PROGRAMME

ED 316 / DED 529: SUBJECT METHODS CHEMISTRY

Date: DECEMBER 2015

Duration: 3 Hours

INSTRUCTIONS: Answer Question ONE and ANY other THREE Questions

- Q1. a) State TWO branches of chemistry to a geologist. **(2 marks)**
- b) List the TWO branches of physical science. **(1 mark)**
- c) Explain THREE ways through which a chemistry teacher can integrate technology in a lesson. **(3 marks)**
- d) You are planning to teach a form one class "Parts of a Bunsen Burner" in a single lesson. Write a detailed lesson plan for the lesson. (Do not write your real names on it) **(6 marks)**
- e) Describe the first aid for a deep cut with considerable bleeding and no broken glass in the wound. **(3 marks)**
- f) Explain how 0.2M solution of Sulphuric acid can be prepared from a concentrated stock solution of 18.8M, 98% assay and density of 1g/cm^3 . (H = 1.0, S = 32.0, O = 16.0) **(2 marks)**

- g) Suggest a most suitable method for teaching the following subtopics giving reasons for the choice made. (Assume all the standard chemicals and apparatus are available.)
- i Structure of the atom
 - ii Filtration. **(2 marks)**
- h) State how sodium is stored and disposed after using it. **(2 marks)**
- i) Identify TWO qualities of a good test. **(2 marks)**
- j) State FOUR first aid fittings and appliances that a standard chemistry laboratory should have. **(2 marks)**
- Q2. You are to plan to teach the topic “Effect of electric current on substances” Write a scheme of work for one week. The content should be systematic. (Do not write your actual name on it) **(15 marks)**
- Q3. Discuss laboratory design and management under the following headings
- i Architectural considerations. **(5 marks)**
 - ii Engineering considerations. **(5 marks)**
 - iii Materials storage. **(5 marks)**
- Q4. Describe FIVE common teaching methods that are used in chemistry lessons. **(15 marks)**
- Q5. Assess the design, merits and demerits of FIVE classroom assessment methods commonly used in chemistry. **(15 marks)**
- Q6. “Accidents are prone to occur if laboratory procedures are not carried out in accordance to standard instructions” Justify the above statement. **(15 marks)**

END