

CHUKA



UNIVERSITY

UNIVERSITY EXAMINATIONS

**EXAMINATION FOR THE AWARD OF DEGREE OF BACHELOR OF DOCTOR OF
PHILOSOPHY IN**

EDCI 972: CHEMISTRY EDUCATION

STREAMS: PhD

TIME: 3 HOURS

DAY/DATE: THURSDAY 19/12/2019

2.30 P.M. – 5.30 P.M.

INSTRUCTIONS:

- **Answer question ONE and any other TWO questions.**

1. (a) Describe the process of selection and organization of teaching and learning materials for chemistry teaching in schools. (15 marks)
(b) Diverse culture and behaviour of scientists guide the development of science and forms a basic foundation of chemistry education. Discuss the implications of this aspect on chemistry education. (15 marks)
 2. “Hands on” activities carried out in school science does not guarantee Inquiry. In the light of this statement, discuss basic elements of an Inquiry Plan for classroom activities. (15 marks)
 3. Many developing counties including Kenya have adopted chemistry curriculum based on the objectives model. Critique the use of this model and suggest possible improvements. (15 marks)
 4. Discuss constructivism as a theoretical framework for chemistry education research providing specific examples of areas of application. (15 marks)
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