

**CHUKA**



**UNIVERSITY**

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**UNIVERSITY EXAMINATIONS**

**EXAMINATION FOR THE AWARD OF DEGREE OF  
MASTERS OF SCIENCE IN EDUCATION**

**EDCI 802: PSYCHOLOGICAL BASIS OF LEARNING SCIENCE**

**STREAMS: MSC (CHEM) PT**

**TIME: 3 HOURS**

**DAY/DATE: TUESDAY 03/12/2019**

**8.30 AM – 11.30 AM**

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**INSTRUCTIONS:**

**Answer Question One and any other Two Questions**

1. (a) Identify any five basic scientific process skills and describe teaching and learning activities that you would design to help learners acquire these skills.  
[10 marks]
  - (b) Discuss the implications of Piagetian developmental theory of learning to teaching and learning process. [10 marks]
  - (c) Critically analyse the implications using expository methods in science classrooms. [10 marks]
  2. Cognitive psychologists toward the use of cognitive strategies as a way of improving learning in science. Using illustrative examples from your teaching subject, discuss the use of any three forms of cognitive strategies. [15 marks]
  3. Science instructions should attempt to portray the nature of science discipline. Discuss the application of the tenets of nature of science in laboratory practical work. [15 marks]
  4. Most science classrooms are said to limit creativity due to restricted objectives and practical procedures. As a teacher with keen interest in developing learner creativity, describe the steps you would take to develop creative process in a class. [15 marks]
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