



**JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND
TECHNOLOGY
SCHOOL OF BIOLOGICAL AND PHYSICAL SCIENCES
UNIVERSITY EXAMINATION FOR THE DEGREE OF BACHELOR OF
EDUCATION (SCIENCE)
4TH YEAR 1ST SEMESTER 2013/2014 ACADEMIC YEAR
REGULAR**

COURSE CODE: SZL 401

COURSE TITLE: HISTORY & PHILOSOPHY

EXAM VENUE: LAB 4

STREAM: (BSc. Science)

DATE: 12/8/14

EXAM SESSION: 11.30 -1.30PM

TIME: 2 HOURS

Instructions:

- 1. Answer question 1 (compulsory) in Section A and any other 2 questions in Section B .**
- 2. Candidates are advised not to write on the question paper.**
- 3. Candidates must hand in their answer booklets to the invigilator while in the examination room.**

SECTION A (30 marks)

1. Define the following terms: (3 marks).
 - i. Relative Truth
 - ii. Hypothesis
 - iii. Theistic Evolution
2. Outline three main stages in the life cycle of a paradigm as a process of science. (3 marks).
3. Explain the most common form of deductive reasoning. (3 marks).
4. State at least three characteristics of a good hypothesis. (3 marks).
5. Outline at least three limitations of science as a means for searching for truth. (3 marks).
6. Explain the step of Interpretation after data collection in the Scientific method. (3 marks).
7. State three methods that can be used to determine the age of the earth. (3 marks).
8. Describe the criteria for defining a species according to Huxley (3 marks).
9. Identify and briefly outline any three evidences of organic evolution (3 marks).
10. With the aid of a diagram give your model concept of origin of life, illustrating the past and present life forms from. (3 marks).

SECTION B (40 Marks).

11. Discuss the three forms of speciation. (20 marks).
12. Critically analyse the evidences for origin of life and the earth. (20 marks).
13. Discuss the contributions of Gregor Mendel to modern synthesis. (20 marks).
14. Analyse ethical issues raised in scientific method of investigations. (20 marks).