



**JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND
TECHNOLOGY
SCHOOL OF BIOLOGICAL AND PHYSICAL SCIENCES
UNIVERSITY EXAMINATION FOR THE DEGREE OF BACHELOR OF
EDUCATION (SCIENCE)
1ST YEAR 2ND SEMESTER 2013/2014 ACADEMIC YEAR
REGULAR**

COURSE CODE: SZL 104/SBI 3121

COURSE TITLE: CELL BIOLOGY

EXAM VENUE: LAB 1

STREAM: (BSc. Science)

DATE: 11/8/14

EXAM SESSION: 9.00 – 11.00AM

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.**

Instructions: ANSWER ALL QUESTIONS IN SECTION A AND ANY TWO QUESTIONS IN SECTION B

SECTION A: ANSWER ALL QUESTIONS (30 MARKS)

1. Explain what is meant by the term cell. (3 marks)
2. State three functions of Smooth Endoplasmic Reticulum. (3 marks)
3. Briefly explain how a cell membrane is adapted to its functions. (3 marks)
4. State any three characteristics of a prokaryotic cell. (3 marks)
5. Briefly describe the role of a nucleus in a cell. (3 marks)
6. What are the differences between plant cells and animal cells? (3 marks)
7. Distinguish between Golgi apparatus and Endoplasmic Reticulum. (3 marks)
8. Explain the role of ribosomes in carrying out the genetic instructions? (3 marks)
9. Describe the composition of chromatin and State its function(s). (3 marks)
10. State three functions of Golgi apparatus in cell activities. (3 marks)

SECTION B: ANSWER ANY TWO QUESTIONS (40 MARKS)

11. Describe the process of protein synthesis in plants. (20 marks)
12. With the aid of a diagram, explain how the cell membrane is adapted to its functions. (20 marks)
13. Explain the molecular structure and functions of cytoskeleton in an animal cell. (20marks)
14. Discuss the adaptations of a chloroplast to its functions. (20 marks)