



**EMBU UNIVERSITY COLLEGE**  
**(A CONSTITUENT COLLEGE OF THE UNIVERSITY OF NAIROBI)**  
**FIRST SEMESTER EXAMINATIONS**  
**SECOND YEAR EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE**  
**IN BIOLOGY; BACHELOR OF SCIENCE IN MICROBIOLOGY AND**  
**BIOTECHNOLOGY AND BACHELOR OF SCIENCE**

**SZL 201: CELL BIOLOGY**

**DATE: DECEMBER 10, 2014**

**TIME: 16:00 – 18:00**

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**INSTRUCTIONS:**

**ANSWER ANY TEN (10) QUESTIONS (7 MARKS EACH)**

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1. Outline the process of translation.
2. Explain the theory of endosymbiosis.
3. Discuss centromeres and telomeres
4. Explain the semi conservative theory of DNA replication.
5. Illustrate the formation of a lysosome and state its functions.
6. Describe the structure and functions of endoplasmic reticulum.
7. Describe cell movement by pseudopodia.
8. Briefly discuss the structure and functions of the cytoskeleton.
9. Describe the preparation of plant cells for microscopic examination.
10. Discuss the role of mRNA in the central dogma theory.
11. Describe the lipid bilayer model of biological membranes.
12. Describe the structure of the chloroplast.

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