EASTERN UNIVERSITY, SRI LANKA FIRST EXAMINATION IN SCIENCE 1998/99 RE-REREAT EXTERNAL DEGREE (TERM SYSTEM) 2004/05 JUNE 2008 EX ZL 101 CELL BIOLOGY

Time: 02 hours

Answer four questions only.

(Illustrate your answers with clear labeled diagrams where

necessary)

- 1. a. Name four important cell organelles in an animal cell and comment on its function in respect of its structure.
 - b. Comment briefly on the molecules transfer by active mechanism across the plasma membrane.
- 2. Explain the protein configuration and describe at least one functional protein in an animal cell.
- 3. Describe the structure and function of the plasma membrane with a fully labeled diagram.
- 4. Explain the term "metabolism" and discuss the fate of glucose in the carbohydrate metabolism.
- 5. Comment on any two of the following
 - a. protein synthesis
 - b. enzyme specificity
 - c. DNA replication
- 6.a. Briefly explain the terms of magnification and resolving power of a light microscope.
 - b. Comment on the role of Stanley Miller's experiment in the cells discovery.