

**EASTERN UNIVERSITY, SRI LANKA**  
**FIRST EXAMINATION IN SCIENCE 2000/2001(2001/2002)**  
**(APRIL 2002)**  
**SEMESTER -I**  
**ZL 101-CELLBIOLOGY & BIOCHEMISTRY**

Time: 02hrs

Answer **all** questions.

(Illustrate your answers with clear, labelled diagrams wherever necessary).

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1.
  - a) Name three organic macromolecules found in the cell membrane.
  - b) What is enzyme? Describe briefly the general properties of them.
  - c) Comment briefly on the factors affecting enzyme activity.
  
2.
  - a) Comment briefly the contribution of Stanley Miller to chemical evolution.
  - b) Name three organelles that are involved in the molecule transport and defense mechanism in an animal cell.
  - c) Describe briefly the functions carried out by the organelles mentioned above.
  
3. Comment briefly any **three** of the following:
  - a) Translation in Eukaryotes
  - b) Transmembrane proteins
  - c) DNA replication
  - d) Blood clotting
  
4.
  - a) Explain briefly the fate of cytoplasmic NADH in the ongoing metabolic process.
  - b) Comment on the role of carnitine in the fat metabolism.
  - c) Distinguish between saturated and unsaturated fatty acids with examples.

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