NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY

FACULTY OF APPLIED SCIENCES

BACHELOR OF SCIENCE HONOURS DEGREE EXAMINATIONS

DEPARTMENT OF APPLIED BIOLOGY AND BIOCHEMISTRY

THEORY: CELL BIOLOGY SBB 1103

DECEMBER 2004

2 HOURS (100 marks)

INSTRUCTIONS

Answer **Four (4)** Questions. Each question carries 25 marks. Where a question contains subdivisions, the mark value for each subdivision is given in brackets. Illustrate your answer where appropriate with large, clearly labelled diagrams.

1. How would you prepare and examine a specimen:
   (a) under an electron microscope (12 marks)
   (b) under light microscope (13 marks)

2. Write short notes on the following:
   (a) Golgi apparatus (8 marks)
   (b) Rough endoplasmic reticulum (9 marks)
   (c) Lysosome (8 marks)

3. Describe the various ways by which cells adhere to each other.

4. Other than forming the cell boundary, what other roles are played by the cell membrane and how does its molecular arrangement facilitate these.

5. Give an account of the structure of ribosomes and then describe protein synthesis.

6. What fundamental differences exist between prokaryotic and eukaryotic cells.

END OF EXAMINATION

Id no's