



UNIVERSITY OF GHANA

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FIRST SEMESTER EXAMINATION, 2012-2013

LEVEL 200: BACHELOR OF BIOMEDICAL ENGINEERING

BMEN 201: GENERAL BIOLOGY (2credits)

Time Allowed: Two (2) Hours

Total marks: 100

Answer all Questions:

1. a) What is a peptide bond? (2 marks)
b) Describe the structure and functions of proteins with suitable diagram. (8marks)
c) Construct a table comparing the groups, side chain of different types of amino acids. (3marks)
2. a) Explain in details description of the plasma membrane with comments on functions of membrane protein (12 marks)
b) Draw a diagram of the plasma membrane and describe the five routes by which molecules pass through membrane. (8marks)
3. a) Briefly describe the activities that occur during the different phase of the interphase stage of cell cycle (12 marks)
b) Outline the fundamental principles of the cell theory (10marks)
4. a) Describe , with diagram and list the functions of the following (each 5 marks)
 - a. cytoskeleton
 - b. Nucleus
 - c. Chloroplast
 - d. Cell wall
5. a) Outline the different methods of microbial control in microbiology laboratory. (10marks)
c) Differentiate between the following
 - i) Viruses and Viroid (5marks)
 - ii) Cell walls of Gram Positive Bacteria and Gram Negative Bacteria (10 marks)