

BOWEN UNIVERSITY, IWO
DEPARTMENT OF BIOLOGICAL SCIENCES
2010/2011 FIRST SEMESTER EXAMINATION
MCB 305: BACTERIOLOGY

Time: 2hrs 20 mins

Answer question 1 and one question from each of sections B and C
Answer section A and B in the same booklet and C in another booklet

SECTION A (Compulsory)

1. Describe each of the following techniques:
- (a) Viable count using pour-plate technique
 - (b) Pour-plate count
 - (c) Gram stain

(30 Marks)

SECTION B

2. Draw a well labelled diagram of a generalized bacterial cell. Describe the functions of any four of the major parts. (20 Marks)
3. (a) What are the major factors that contribute to the transmission of *Vibrio* species.
(b) Discuss the pathogenicity of *Vibrio cholerae* (20 Marks)

SECTION C

4. Describe the use of dry heat and moist heat for the sterilization of materials. (20 Marks)
5. Describe how the following biochemical techniques may be carried out in a microbiological laboratory:
- (a) Starch hydrolysis
 - (b) Fermentation of glucose
 - (c) Production of hydrogen sulphide (20 Marks)