

**BOWEN UNIVERSITY, IWO
DEPARTMENT OF BIOLOGICAL SCIENCES**

2010/2011 SECOND SEMESTER EXAMINATION

MCB 410: INDUSTRIAL MICROBIOLOGY

Answer question 1 and one question from each of sections **B** and **C**. Answer question 1 and Section B in one booklet and Section C in another booklet.

Time: 2hr 15 mins.

SECTION A

1. (a) Explain the numerous methods available to detect wild yeasts in beer.
- (b) Present a well-labelled diagram of a generalized batch fermenter as currently employed in the industry. (25 Marks)

SECTION B

2. (a) Write in details on the production of spirit beverages.
 - (b) State the starting materials **ONLY** of the following alcoholic beverages
 - (i) Rum
 - (ii) Brandy
 - (iii) Burukutu
 - (iv) Champagne(25 Marks)
3. Write on quality control in industrial production. (25 Marks)

SECTION C

4. Write an essay on "industrial enzymes". (25 Marks)
5. (a) Write briefly on microorganisms associated with wood rot
 - (b) Discuss any two main types of wood rot caused by microorganisms. (25 Marks)