

**BOWEN UNIVERSITY, IWO**  
**DEPARTMENT OF BIOLOGICAL SCIENCES**  
**2010/2011 SECOND SEMESTER EXAMINATION**  
**MCB 413: PHARMACEUTICAL MICROBIOLOGY**

Answer any three questions

Time: 2hr 15 mins

1. (a) Discuss the mode of action of the  $\beta$ -lactams, aminoglycosides and the tetracyclines.  
(b) What do you understand by the principle of selective toxicity? (25 Marks)
2. (a) Write on any 4 disinfecting agents  
(b) Discuss the factors which may influence the actions of disinfectants. (25 Marks)
3. (a) Write briefly on the following:  
(i) Antiseptics  
(ii) Septic  
(iii) Bacteriostatic  
(iv) Biocide  
(v) Bacteriocidal  
(b) Diagrammatically explain the distinct phases of the microbial growth curve and discuss in detail the phase which has a constant number of viable microorganisms. (25 Marks)
4. (a) Explain the term "Antibiotics"  
(b) Write on any two of the following:  
(i) Two synthetic chemotherapeutic agents  
(ii) Azoles  
(iii) Topical antifungal agents  
(iv) Classes of available antifungal drugs (25 Marks)
5. Commercial antibiotics have been discovered to fail on certain occasions. Discuss this phenomenon in detail. (25 Marks)