



FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA
DEPARTMENT OF MICROBIOLOGY
COURSE TITLE: PHARMACEUTICAL MICROBIOLOGY
COURSE CODE: MCB 525 (3 units)
SECOND SEMESTER EXAMINATION, 2016/2017 ACADEMIC
SESSION

Instruction: Answer **5** questions in all (attempt at least 2 questions in each section)

Time Allowed : 2¹/₂ Hours

SECTION A

- 1(a). What is pharmaceutical microbiology?
- 1(b). List 10 secondary metabolites of plants origin that are useful in pharmaceutical microbiology
- 1(c). State the traditional Welsh and American rhymes and explain their relevance in medicine
- 2(a). Explain the following terms as they are used in pharmaceutical microbiology
 - i. Chemotherapy
 - ii. Prophylaxis
 - iii. Drug
 - iv. Antibiotic
 - v. Vaccine
 - vi. Antimicrobial agent
 - vii. Synthetic, naturally occurring and semi synthetic agents
- 2(b). Give a diagrammatical representation of the core structure of cephalosporin
- 3(a). List the pharmaceutical ingredients that make pharmaceutical products susceptible to microbial attack
- 3(b). What are the observable effects of microbial attack on pharmaceutical products?
- 3(c). Enumerate the parameters to be controlled in order to mitigate spoilage of drugs and other pharmaceuticals.
- 4(a). Discuss the role of NAFDAC in the quality control of pharmaceuticals in Nigeria
- 4(b). Explain control of the phased production and control of final products of pharmaceuticals

- 4(c). Describe the following:
- i. Validation activities and monitoring
 - ii. Analytical development of new products and stability

SECTION B

- 1(a). Giving specific examples, describe the possible effects of mutational resistance in microorganisms.
- 1(b). Explain how a microbiologist may contribute to incidence of microbial resistance
2. Explain how you would determine the susceptibility of an organism to a plant extract by poison food techniques
3. Discuss the general mode of action of antiseptics and disinfectants.