



NATIONAL OPEN UNIVERSITY OF NIGERIA
PLOT 91, CADASTRAL ZONE, NNAMDI AZIKWE EXPRESSWAY, JABI - ABUJA
FACULTY OF SCIENCE
Department of Biological Sciences
2025_1 EXAMINATION

BIO 320: Microbial Ecology

Time: 2 ½ Hours

Credit Units: 3

INSTRUCTION: Attempt FOUR (4) questions in all. Question 1 is compulsory

- 1a. Discuss the following microflora in aquatic environment
 - i. Fungi (10 marks)
 - ii. Bacteria (15 marks)

- 2a. Discuss the following stages involved in the dispersion of air borne micro-organisms.
 - i. Liberation (5 marks)
 - ii. Dispersion (5 marks)
 - iii. Disposition (5 marks)

- 3a. List the factors affecting the concentration of micro-organism in the atmosphere (5 marks)
- b. Mention six (6) types of diseases with aerogenic transmission by Sinnecker (10 marks)

- 4a. Explain Soil profile/depth as a factor affecting microbial growth in the soil (5 marks)
- b. Discuss the Settle Plate (Simple Gravity Plate) Technique of isolation of micro-organism (10marks)
- 5a. Write on the following in a microbial association
 - i. Neutralism (5 marks)
 - ii. Mutualism (5 marks)
 - iii. Commensalism (5 marks)
- 6a. Discuss the following ecological concept
 - i. Habitat (3marks)
 - ii. Climax Community (5marks)
 - iii. Succession of micro -organism on dung (7marks)