



# NATIONAL OPEN UNIVERSITY OF NIGERIA

National Open University Of Nigeria

Plot 91, Cadastral Zone, Nnamdi Azikiwe Expressway, Jabi - Abuja

Faculty of Science

OCTOBER/NOVEMBER 2016 EXAMINATION

**COURSE TITLE: MICROBIAL ECOLOGY**

COURSE CODE: BIO 320

TIME ALLOWED: 2 HOURS

**INSTRUCTION: ANSWER QUESTION 1 AND ANY OTHER THREE QUESTIONS**

1. (a). Discuss the practical application of aeromicrobiology **14 marks**  
(b). List any five factors of aquatic environment **5 marks**  
(c). Give three groups of microorganisms in the aquatic environment **6 marks**
2. (a). Give six different forms of interaction and co-existence of microorganisms in common habitats **6 marks**  
(b). Describe some morphological adaptations of micro-organisms in the water environment. **9 marks**
3. (a). What are the advantages and disadvantages of soil plate method of isolation of soil microorganisms? **12 marks**  
(b). Give three limitations of the Rossi-Cholodny slide method of isolation of soil microorganisms **3 marks**
4. List the major factors affecting microbial growth in soil. Discuss any two of them. **15 marks**
5. (a). Define salt wedge and explain it's influence on marine organisms? **3 marks**  
(b). Discuss briefly, factors that affect the concentration of microorganisms in the atmosphere. **12 marks**
6. Distinguish very clearly between biodegradation and biodeterioration. **15 marks**