



**NATIONAL OPEN UNIVERSITY OF NIGERIA
14-16 AHMADU BELLO WAY, VICTORIA ISLAND LAGOS
SEPTEMBER/OCTOBER 2015 EXAMINATION**

SCHOOL OF SCIENCE AND TECHNOLOGY

COURSE CODE: BIO 320

COURSE TITLE: MICROBIAL ECOLOGY

TIME ALLOWED: 2 HOURS

INSTRUCTION: ANSWER QUESTION 1 AND ANY OTHER THREE QUESTIONS

1. (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**
(c). Briefly discuss oxygen and carbon dioxide as important factors in the aquatic environment
10 marks
2. (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**
3. List the major factors affecting microbial growth in soil. Discuss any two of them. **15 marks**
4. (a). Define salt wedge and explain its influence on marine organisms? **3 marks**
(b). Discuss briefly, factors that affect the concentration of microorganisms in the atmosphere. **12 marks**
5. (a). Discuss the practical application of aeromicrobiology **7 marks**
(b). List any five factors of aquatic environment **5 marks**

(c). Give three groups of microorganisms in the aquatic environment **3 marks**

6. Distinguish very clearly between biodegradation and biodeterioration. **15 marks**