

2023_2 EXAMINATIONS

BIO 320 - MICROBIAL ECOLOGY

TIME 2½HOURS

CREDIT UNITS: 3

INSTRUCTION: Answer question ONE (1) and any other FOUR (4) questions

1. Discuss the following

- i. Succession of micro-organisms on cellophane film (10 marks)
- ii. Colonization of sterile human hair (6 marks)
- iii. Functions of soil Fungi (6 marks)

2. Describe the following types of microflora in aquatic environment

- i. Microalgae (6 marks)
- ii. Fungi (6 marks)

3. Discuss how the following components of aquatic environment provide special habitats to microbes

- i. Lithogeneous (5 marks)
- ii. Biogenous (7 marks)

4. Explain how the following factors affect microorganisms in aquatic habitat:

- i. Hydrogen Ion Concentration (8 marks)
- ii. Salinity (4 marks)

5. Expatiate on the following stages involved in the dispersion of air-borne particles and aerial microorganisms (12 marks):

- i. Liberation and take –off into the air (4 marks)
- ii. Dispersion in air current (4 marks)
- iii. Deposition on surfaces (4 marks)

6. Write the major differences between biodeterioration and biodegradation (12 marks).