



NATIONAL OPEN UNIVERSITY OF NIGERIA
Plot 91, Cadastral Zone, Nnamdi Azikiwe Expressway, Jabi - Abuja
Faculty of Science
DEPARTMENT OF BIOLOGICAL SCIENCES
2024_2 EXAMINATION

COURSE CODE: BIO 306
COURSE TITLE: GENERAL PHYSIOLOGY 11
CREDIT UNIT: 3 UNITS
TIME ALLOWED: 2 HOURS

INSTRUCTION: ANSWER QUESTION ONE AND ANY THREE OTHERS.

- 1ai. Give an account of excretion in Coelenterates **6 mks**
- 1aii. The richest source of water in food is from? **1mk**
- 1aiii. Describe osmotic responses of freshwater invertebrates **6 mks**
- 1bi. In a tabular form, show the excretory organs of any seven (7) lower animals. **7 mks**
- 1bii. Mention ten (10) parts of the mammalian kidney **5mks**
- 2i. Describe the loss of water by terrestrial invertebrate arthropods. **10 mks**
- 2iii. How do cockroaches balance their water budget? **5 mks**
- 3i. Discuss the principles of osmosis. **5 mks**
- 3ii. State the major difference between osmosis and diffusion. **5 mks**
- 3iii. Write concisely on the osmotic responses of terrestrial vertebrates **5 mks**
- 4i. Explain the major functions of blood in living organisms. **10mks**
- 4ii. Discuss factors affecting stomata opening and closing. **5 mks**
- 5i. How are nitrogenous excretory products produced and removed in animals? **12 mks**
- 5ii. Briefly describe the proximal convoluted tubule (PCT). **3 mks**
- 6i. How does soil temperature affect the rates of water absorption? **11mks**
- 6ii. Mention the group of proteins present in the plasma. **2mk**
- 6iii. State their influences. **2mk**