



NATIONAL OPEN UNIVERSITY OF NIGERIA
14-16 AHMADU BELLO WAY, VICTORIA ISLAND LAGOS
MARCH/APRIL 2016 EXAMINATION

SCHOOL OF SCIENCE AND TECHNOLOGY

COURSE CODE: BIO306
COURSE TITLE: GENERAL PHYSIOLOGY II

CERDIT UNIT: 2

TIME: 2 HOURS

INSTRUCTION: ANSWER QUESTION ONE (1) AND ANY OTHER THREE (3) QUESTIONS

- 1a. Give a detailed description of how water and nutrients are transported in plants. (10 marks)
 - b. Account for how terrestrial animals overcome the problems of water loss and water gains. (3 marks)
 - c. Enumerate the significance of the following:
 - (i) diffusion (6 marks)
 - (ii) osmosis (6 marks)
2. With relevant examples describe the various ways reflex response is applied in our daily activities. (15 marks)
- 3a. what do you understand by the term osmoregulation? (2 marks)
 - b. Account for the need for osmoregulation in animals. (5 marks)
 - c. Describe the relationship between osmotic equilibrium and ionic composition in marine animals. (8 marks)
- 4a. Define excretory organ. (2 marks)
 - b. Outline the sequences of plasmolysis. (4 marks)
 - c. Write **short notes** on the following:
 - (i) urea (3 marks)
 - (ii) ammonia (3 marks)
 - (iii) uric acid (3 marks)
5. In a tabular form, distinguish between hormonal and Nervous Control Properties. (15 marks)
6. Briefly describe the functions of blood. (15 marks)