



**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 306

COURSE TITLE: GENERAL PHYSIOLOGY II

TIME ALLOWED: 2 Hours

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

1. (a) Define excretory organ. (3 marks)
(b) List **five** functions of the mammalian kidney. (5 marks)
(c) Explain how terrestrial animals overcome the problems of water loss and water gains. (8 marks)
(d) Write **short notes** on the following nitrogenous waste products
(i) Urea (3 marks)
(ii) Ammonia (3 marks)
(iii) Uric acid (3 marks)
2. (a)) What is guttation? (3 marks)
(b) Give reasons why osmoregulation is essential in animals. (5 marks)
(c) Describe in **details** the nature and functions of hormones. (7 marks)
3. (a) List the common eye defects. (3 marks)
(b) Outline the various kinds of water available to plants in the soil. (4 marks)
(c) Briefly explain the following:
(i) Perception of body balance (4 marks)
(ii) Mechanism of hearing (4 marks)
4. (a) Distinguish between transpiration and evaporation. (7 marks)
(b) Blood is a very important component of a human's body. Discuss. (8 marks)
5. (a) Highlight the factors affecting evaporative water loss in terrestrial animals. (5 marks)
(b) Account for any **four** urinary disorders. (10 marks)

6. Give a **detailed** account of the influence of physical factors on the rate of water absorption in plants. (15 marks).