



NATIONAL OPEN UNIVERSITY OF NIGERIA
PLOT 91 UNIVERSITY VILLAGE, JABI CADASTRAL ZONE, AIRPORT ROAD,
JABI, ABUJA
FACULTY OF SCIENCES
SEPTEMBER, 2020_1, EXAMINATION

COURSE TITLE: PARASITOLOGY
COURSE CODE: BIO 411
TIME ALLOWED: 2 HOURS
CREDIT UNIT: 2 CREDIT UNITS

INSTRUCTION: ANSWER QUESTION 1 AND ANY OTHER THREE QUESTIONS

1. Okorikoko is an **Internally Displaced Persons (IDP)** Camp, located somewhere in the Middle Belt region of Nigeria. Information has it that the IDP camp is overpopulated, has no pipe-borne water, no toilet facility and no clinic. However, there is a fast flowing stream visited by both young and old. Also, about 300 meters away is a low-lying plain where available water is used for both normal farming of rice, sugarcane and some irrigation in the dry season. Cattle also stray into the area to drink from the plains.
 - (a) From the foregoing, enumerate with reason(s), possible parasitic diseases likely to infect the community (13 marks)
 - (b) In what ways can they be prevented or controlled? (12 marks)

- 2 Briefly explain how you will diagnose each of the following diseases:
 - (i) Taeniasis (ii). Elephantiasis (iii). Onchocerciasis (iv) Schistosomiasis
 - (v) Loiasis (15 marks)

3. (a) What are the major adaptations of parasites that have enhanced their survival and disease transmission? (8 marks)
 - (b) List four portals/routes of entry of parasites into their host body. (3 marks)

(c) Enumerate the different types of parasites classified based on their habitat, nature of the host and degree of dependence on the host. (4 marks)

4. (a) Name the Vectors/Intermediate hosts of the following parasites, and their location in the host

(i) *Plasmodium falciparum* (ii) *Wuchereria bancrofti* (iii) *Schistosoma mansoni*
(iv) *Taenia saginata* (v) *Onchocerca volvulus* (vi) *Trypanosoma gambiense*
(vii) *Dracunculus medinensis* (viii) *Taenia solium* (8 marks)

(b) For each of these parasites, also state the location in the host body (7 marks)

5. (a) The taxonomy of the Protozoa is primarily based on the presence/absence and the type of motile organelles.

In a tabular form, make a list of:

- i. The resulting classification
- ii. The type of locomotory organelle, and
- iii. An example of a parasite in each group (12 marks)

(b). What are the characteristics of the Protozoa (3 marks)