



NATIONAL OPEN UNIVERSITY OF NIGERIA
PLOT 91, CADASTRAL ZONE, NNAMDI AZIKIWE EXPRESSWAY, JABI -
ABUJA
FACULTY OF SCIENCE
Department of Pure and Applied Sciences
2021_2 EXAMINATION

BIO 411 PARASITOLOGY - 2 UNITS

INSTRUCTION: ANSWER QUESTIONS 1 AND ANY OTHER THREE.

TIME ALLOWED - 2 HOURS DATE:

- 1 (a) For each of the following disease conditions, mention the vector/intermediate host; and the location of the parasite in the host:
(i) Kala azar (ii) Bilharziasis (iii) Sleeping sickness (iv) River blindness (v) Elephantiasis (10 marks)

(b) Give the scientific names of the parasites listed below.
(i) Dwarf tapeworm (ii) Broad fish tapeworm (iii) Whipworm (iv) Common roundworm (v) Eye worm (vi) Blood fluke (vii) Liver fluke (viii) Lung fluke (ix) Thorny headed worm (x) Leech (10 marks)

(c) List five features of parasitological interest in the nematode, *Ascaris lumbricoides*. (5 marks)
2. (a) How is the tapeworm adapted to its parasitic mode of life? 5 marks
(b) Briefly describe the life cycle of the tapeworm, *Taenia saginata* (10 marks)
- 3 (a) What is Epidemiology? (2 marks)
(b) Enumerate the aims of Epidemiology (7 marks)
(c) By means of a **diagramme only**, describe the disease/epidemiologic triangle. (6 marks)
4. (a) What are the characteristics of (i) Acanthocephalans (5 marks)
(ii) Trematodes. (6 Marks)
(b) Mention the diagnostic feature of (i) Egg of *Schistosoma mansoni* (ii) Egg of *Schistosoma heamatobiumi* (iii) Fertilized Egg of *Ascaris lumbricoides* (iv) Egg of *Trichuris trichiura* .(1 mark each = 4 marks)
- 5 (a) Explain the following terms: (i) Prevalence (3 marks) (ii) DALYs (3 marks)

- (b) A final year student of the Department of Biology in a Private University obtained the following data after examining blood samples for malaria infection in Kadara primary health centre.

Month	No. Examined	No. Infected
January 2020	60	28
February 2020	72	32
March 2020	67	30
April 2020	66	33
May 2020	66	37
June 2020	70	46
July 2020	50	35
August 2020	49	37

- Calculate (i) the monthly prevalence of infection, (8 marks)
(ii) the mean prevalence for the community. (1 mark)

- (c) What epidemiological deduction(s) can you make from the results? (1 mark)

Total 16 marks; maximum marks =15 marks