



**NATIONAL OPEN UNIVERSITY OF NIGERIA**  
**PLOT 91, CADASTRAL ZONE, NNAMDI AZIKIWE EXPRESSWAY, JABI -**  
**ABUJA**  
**FACULTY OF SCIENCE**  
**APRIL, 2019 EXAMINATION**

**BIO 411 PARASITOLOGY - 2 UNITS**

**INSTRUCTION: ANSWER QUESTIONS 1 AND ANY OTHER THREE.**

**TIME ALLOWED - 2 HOURS.**

1. (a) Explain the following terms: (i) Epidemiology (ii) Prevalence (iii) Intensity (iv) DALYs (v) Parasite (vi) Parasitism (11 marks)  
  
(b). Classify parasites based on (i) Site of predilection and (ii) duration of degree of dependence (6 marks)  
  
(c) Why are hosts important to parasites? (3 marks)  
  
(d) Define the following types of hosts: (i) Definitive host (ii) Intermediate host (iii) Paratenic host. (5 marks)
2. (a) What are (i) Monogenetic and (ii) Digenetic trematodes (6 marks)  
(b) Discuss the life cycle of a human *Schistosoma* species (9 marks)
3. Write short notes on any **four** of the following:  
(i) Acanthocephala  
(ii) Nematoda  
(iii) Cestoda  
(iv) Trematoda  
(v) Protozoa (15 marks)
4. (a) Make a labelled drawing of the structure of a typical Acanthocephalan (6 marks)  
(b) By means of an annotated diagram only, describe the life cycle of *Polymorphus* sp (an acanthocephalan parasite of birds). (9 marks)
5. (a) Name the causative agent and the insect vector of each of the following diseases (i) River blindness (ii) Calabar swelling (iii) Malaria (iv) Sleeping sickness (v) Guineaworm disease (vi) Elephantiasis (6 marks)  
  
(b) List any five aims of epidemiology. (3 marks)

(c) As a student of parasitology, make a list of **one** possible disease and **one** vector or intermediate host of interest in the following communities:

- (i) A community that cherishes under cooked pork
- (ii) A community that depends on pond water for drinking and washing, and
- (iii) A community in which irrigation and rice farming is the mainstay. (6 marks)