

NATIONAL OPEN UNIVERSITY OF NIGERIA Plot 91, Cadastral Zone, Nnamdi Azikiwe Expressway, Jabi - Abuja **Faculty of Science** DEPARTMENT OF BIOLOGICAL SCIENCES 2024 2 EXAMINATION

COURSE CODE: BIO 411 COURSE TITLE: PARASITOLOGY CREDIT UNIT: 2 UNITS TIME ALLOWED: 2 HOURS INSTRUCTION: ANSWER QUESTION ONE AND ANY TWO OTHERS.

Q1

- a. Itemize six (6) fields of parasitology.
- b. Explain the characteristics of Arthropods.
- c. Enumerate eight (8) aims of epidemiology.
- d. Write notes on leeches on the following;
 - (10marks)
 - i. Taxonomy
 - ii. Life cycle
 - iii. Pathogenicity
 - iv. Epidemiology and management

Q2

- Itemize the different criteria for categorizing parasites a. (2marks)
- b. With the aid of an annotated diagram describe the life cycle of a named acanthocephalans parasite.

(18marks)

Q3

- a. Explain the biology (characteristic features) and pathogenicity of protozoan. (5marks)
- b. Discuss any three (3) of the followings
 - (15marks)
 - i. Host-parasite interaction/relationships
 - Host parasite selection ii.
 - iii. Host parasite specificity
 - Host parasite co-evolution iv.

Q4

- (6marks) (6marks)
- (8marks)

- **a.** Write notes on nematodes under the followings;
 - (10marks)
 - Taxonomy
 - ii. Biology (characteristic features)
 - iii. Life cycle

i.

- iv. Pathogenicity
- **b.** Explain the Disability Adjusted Life Years (DALYs) of Malaria according to WHO 2002 under the following:
 - (10marks)
 - i. TDR disease category
 - ii. DALYs (hundreds of thousands)
 - iii. Deaths (thousands)
 - iv. Population at risk (million)
 - v. Number of endemic countries
 - vi. Number of infected prevalence

Q5

- a. Outline the various vector control tools and measures in combating parasitic diseases caused by
 - Vectors (6 marks)

b. 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)