

Total number of printed pages--4

1 (Sem-4) ZLG 6

2025

ZOOLOGY

Paper : ZLG0400604

(Parasitology)

Full Marks : 45

Time : Two hours

*The figures in the margin indicate
full marks for the questions.*

1. Multiple choice questions : 1×5=5
 - (i) Which of the following is a parasitic relationship where one organism benefits at the expense of other organism ?
 - (a) Mutualism
 - (b) Predation
 - (c) Parasitism
 - (d) Commensalism
 - (ii) What is the term for an organism that live on or in a host organism and gets its food from or at the expense of the host ?
 - (a) Predator
 - (b) Prokaryotes
 - (c) Parasite
 - (d) Prey

(iii) Which of the following is not a vector known to transmit disease in humans ?

- (a) *Xenopsylla cheopis*
- (b) *Anopheles* mosquito
- (c) *Aedes* mosquito
- (d) Tsetse fly

(iv) In the context of parasitism, what is the term used for the process of preventing or guarding against parasitic infection ?

- (a) Prophylaxis
- (b) Diagnosis
- (c) Pathogenicity
- (d) Epidemiology

(v) Among the listed parasites, which one is responsible for causing sickness in humans ?

- (a) *Leishmania donovani*
- (b) *Plasmodium vivax*
- (c) *Trypanosoma gambiense*
- (d) *Schistosoma haematobium*

2. Very short answer type questions : **(any five)**
2×5=10

- (a) Define Parasitoid.
- (b) Name the primary and secondary host of *Plasmodium vivax*.
- (c) Draw a neat and labelled diagram of *Taenia solium*.
- (d) What is Filariasis ?

(e) Write a note on control measures of ticks and mites.

(f) What is Kala-azar ?

(g) What are the different types of malaria ?

(h) Write down the *two* most commonly prescribed anthelmintic drugs.

(i) What is sleeping sickness ?

(j) What are the most common parasitic diseases in India ?

3. Short answer type questions : **(any four)**
5×4=20

(a) Explain the difference between parasitism parasite and parasitoid.

(b) Discuss the evolution of parasitism and the different types of host-parasite relationship.

(c) Describe the morphology and life cycle of *Plasmodium vivax*, including its prevalence and epidemiology.

(d) Evaluate the pathogenicity of *Schistosoma haematobium* and discuss the method of diagnosis used for this parasite.

(e) Propose effective prophylaxis and treatment strategies for *Trypanosoma gambiense* infection.

(f) Explain the biology importance and control measures of ticks and their impact on human health.

(g) Illustrate the prevalence, epidemiology and pathogenicity of *Taenia solium* infections, emphasizing the risk factor associated with the parasite.

- (h) Discuss the difference, in parasitic strategies between Candiru and Vampire bat, highlighting their unique adaptation to parasitism.

4. Long answer type questions : (any one)

10×1=10

- (a) Discuss the morphology life cycle prevalence, epidemiology and pathogenicity of *Ascaris lumbricoides*, *Ancylostoma duodenale*, *Wuchereria bancrofti* and *Trichinella spiralis*. Highlight any significant difference in their life cycle or pathogenic effects.
- (b) Explain the biology, importance and control methods of ticks, mites, *Pediculus humanus* (Head and body louse), *Xenopsylla cheopis*, and *Cimex lectularius*.
- (c) Create a systemic account detailing the parasitic vertebrate Candiru and Vampire bat. Include relevant information such as morphology, life cycle, prevalence and any unique aspects of their parasitic behaviour.
- (d) Analyse the morphology, life cycle, prevalence, epidemiology and pathogenicity of *Schistosoma haematobium*, *Taenia solium* and *Hymenolepis nana*. Discuss any unique characteristics or mechanism of these parasites.
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