

MZOE-001

ASSIGNMENT BOOKLET

M.Sc. (Zoology) Programme

(MSCZOO)

PARASITOLOGY

Valid from 1st January, 2024 to 31st December, 2024



**School of Sciences
Indira Gandhi National Open University
Maidan Garhi
New Delhi-110068**

(2024)

Dear Student,

Please read the Section on assignments in the Programme Guide for M.Sc. (Zoology). A weightage of 30 per cent, as you are aware, has been earmarked for continuous evaluation, which would consist of one tutor-marked assignment for this course. The assignment is in this booklet. The total marks for this assignment is 100, of which 40 marks are needed to pass it.

Instructions for formatting your Assignments

Before attempting the assignment please read the following instructions carefully:

- 1) On top of the first page of your answer sheet, please write the details exactly in the following format:

ROLL NO.:

NAME:

ADDRESS:

.....

.....

COURSE CODE:

COURSE TITLE:

ASSIGNMENT NO.:

STUDY CENTRE:

DATE:

PLEASE FOLLOW THE ABOVE FORMAT STRICTLY TO FACILITATE EVALUATION AND TO AVOID DELAY.

- 2) Use only foolscap size writing paper (but not of very thin variety) for writing your answers.
- 3) Leave 4 cm margin on the left, top and bottom of your answer sheet.
- 4) Your answers should be precise.
- 5) Solve this assignment, and **submit the complete assignment answer sheets within the due date.**
- 6) The assignment answer sheets are to be submitted to your Study Centre within the due date. **Answer sheets received after the due date shall not be accepted. We strongly suggest that you retain a copy of your answer sheets.**
- 7) This assignment is valid from 1st January, 2024 to 31st December, 2024. If you have failed in this assignment or fail to submit it till its validity, then you need to get the assignment for the next year and submit it as per the instructions given in the Programme Guide.
- 8) **You cannot fill the examination form for this course** until you have submitted this assignment.

We wish you good luck.

ASSIGNMENT PARASITOLOGY

Course Code: MZOE-001
Assignment Code: MZOE-001/TMA/2024
Maximum Marks: 100

Note: Attempt all questions. The marks for each question are indicated against it.

1. What are the main advantages and disadvantages of a parasitic life cycle? Explain. (10)
2. a) What are the different stages of infection, once it sets in the host? Describe briefly. (5)
b) Mention briefly various biochemical adaptations in parasites. (5)
3. a) Explain asexual cycle of *Plasmodium* in man. (5)
b) Elaborate on the ways of evading the action of host immune system by *Leishmania*. (5)
4. i) Write a note on trypanosomes affecting man. (5)
ii) Write different methods of detection of schistosomiasis in humans. (5)
5. Explain the pathogenesis in humans caused by adults and larvae of *Ancylostoma duodenale*. (10)
6. a) How does immunotherapy with the 45 kDa antigen of *T. spiralis* work in the murine model? (5)
b) How does cell-mediated immunity play an important role in limiting the invasive amoebic disease and its recurrence in the host? (5)
7. i) What is the preferable time to take blood sample from the patient of filariasis for disease diagnosis? (1)
ii) What are the advantages of antigen detection test in filariasis? (2)
iii) Despite high microfilaraemia infection, the filariasis may not show any symptoms of infection. Give reason. (2)
iv) Write the full form of QSAR, LBDD and SBDD. (3)
v) Name any two biological agents used to control mosquito larvae. (2)
8. a) Explain in detail the life cycle of *Dracunculus medinensis*. (5)
b) Differentiate between the following pairs of terms: (5)
(i) Acute amoebic dysentery and Chronic amoebic dysentery
(ii) Invasive and Non-invasive trophozoites of *Entamoeba histolytica*
9. Describe the transmission of Eastern Equine Encephalitis and West Nile Fever in animals and write their symptoms. (10)
10. a) What are the different strategies of host-parasite interaction undertaken by nematode parasites of plants? (5)
b) Write any five properties of an ideal antiparasitic drug treatment. (5)