



MERU UNIVERSITY OF SCIENCE AND TECHNOLOGY

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University Examinations 2024/2025

SECOND YEAR FIRST SEMESTER EXAMINATION FOR THE DEGREE OF BACHELLOR OF
SCIENCE IN ANIMAL HEALTH AND PRODUCTION

AAP 3203: PARASITOLOGY 1

DATE: JANUARY 2025

TIME: 2 HOURS

INSTRUCTIONS: Answer question *ONE* and any other *TWO* questions

QUESTION ONE (30 MARKS)

a) Define the following terms as used in Parasitology:

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|-------------------------|-----------|
| i. Facultative parasite | (2 Marks) |
| ii. Primary host | (2 Marks) |
| iii. Larviposition | (2 Marks) |
| iv. Biological vector | (2 Marks) |

b) In each of the following insect life cycles, what is the stage that leaves the egg?

- | | |
|---------------------------------|----------|
| i. Holometabolous life cycle | (1 Mark) |
| ii. Heterometabolous life cycle | (1 Mark) |

c) List THREE species of burrowing mites (3 Marks)

d) Name FOUR families of arthropods associated with myiasis (4 Marks)

e) Describe the external characteristics of bed bugs (5 Marks)

f) Describe the indirect effects associated with ticks in livestock production (4 Marks)

- g) Describe the parasitological significance of parasites that belong to the family Tabanidae (4 Marks)

QUESTION TWO (20 MARKS)

- a) Describe the life cycle of sucking lice (6 Marks)
- b) Describe the morphological features of arthropods in the Family Glossinidae (6 Marks)
- c) Describe the life cycle of the vectors of East Coast fever (12 Marks)

QUESTION THREE (20MARKS)

- a) Describe the morphological features of *Sarcoptes* mites (8 Marks)
- b) Describe the morphology, life cycle, and pathological significance of the sandfly (12 Marks)

QUESTION FOUR (20 MARKS)

- a) In a tabular form, describe the differences between hard and soft ticks under the following headings:
- i) Behaviour (4 Marks)
- ii) Ecology (4 Marks)
- b) Describe the characteristics of an insect that belongs to the sub-order Nematocera (6 Marks)
- c) Describe the life cycle of *Dermanyssus gallinae* (6Marks)