

CHUKA UNIVERSITY

RESIT/SUPPLEMENTARY EXAM MAY, 2025

ZOOL 336: PESTICIDES AND MICROBIAL CONTROL

STREAMS: BSC (MICROBIOLOGY AND BIOTECHNOLOGY) Y3S1

INSTRUCTIONS

Answer ALL questions in Section A and any TWO from Section B

Section A (30 Marks)

Q1. a) Explain the meaning of the following terminologies when referring to pesticides

- i. Mode of action (1mk)
- ii. Antifeedant (1mk)
- iii. LD₅₀ (1mk)

b) Explain why fertilizers and animal drugs are not considered as pesticides (2mks)

Q2. a) Explain three physical processes which may distribute pesticides into the environment

(3mks)

b) Mention four objectives of pest surveillance (2mks)

Q3. a) Differentiate between antivirals and viricides (2mks)

b) Briefly describe the classes of antimicrobial agents (3mks)

Q4. a) Use examples to describe the components of pesticide formulations (3mks)

b) Differentiate between the following insecticide formulations

- i. Aerosol and Fumigant (1mk)
- ii. Emulsifiable Concentrate (EC) and Emulsion in Water (EW) (1mk)

Q5. Elaborate on the following preventive methods used in Integrated Pest Management (IPM)

- a. Natural enemies (2mks)
- b. Cultural methods (2mks)
- c. Legal method (2mks)

Q6. a) Describe three major classes of bio-pesticides (3mks)

b) Describe three mechanisms of Host Plant Resistance (3mks)

Section B (40 Marks)

Q7. Discuss classification of pesticides on the basis of how or when they work (20mks)

Q8. a) Discuss resistance management of herbicides (12mks)

b) Elaborate on the requirements for successful pest management program (8mks)

Q9 Discuss components of biotechnology in pest management (20mks)

END!!!!!!!!!!!!!!