



MACHAKOS UNIVERSITY

University Examinations for 2021/2022 Academic Year

SCHOOL OF PURE AND APPLIED SCIENCES

DEPARTMENT OF BIOLOGICAL SCIENCES

SECOND YEAR FIRST SEMESTER EXAMINATION FOR
BACHELOR OF SCIENCE IN POPULATION HEALTH
HPH 205: ENTOMOLOGY, PEST AND PEST MANAGEMENT

DATE:

TIME :

INSTRUCTIONS

Answer Question 1 and any other two questions

Illustrate your answer with clean labelled diagrams wherever appropriate

QUESTION ONE (COMPULSORY)

- a) Describe osmoregulation in insects (3 marks)
- b) Differentiate myiasis from MDT (3 marks)
- c) Explain the importance of the Rotterdam Convention to Kenya (3 marks)
- d) Explain the economic importance of the insect order Siphonaptera (3 marks)
- e) Describe how you would store insecticides safely at home (3 marks)
- f) Explain how the malaria act is implemented (3 marks)
- g) Identify the characteristics of any three named Insects of the order Anoplura (3 marks)
- h) Outline the reproductive system of a female insect (3 marks)
- i) Outline the economic importance of the insect *Musca domestica* (3 marks)
- j) Outline the biological control of *Anopheles gambiae*. (3 marks)

QUESTION TWO (20 MARKS)

Discuss the regulatory role of PCPB.

QUESTION THREE (20 MARKS)

Explain malaria is still prevalent today, yet effective management strategies exist.

QUESTION FOUR (20 MARKS)

- a) Discuss the practical methods of rodent control (10 marks)
- b) Explain the use of MDT in Kenya (10 marks)

QUESTION FIVE (20 MARKS)

Discuss the negative economic importance of rodents in a city and their possible mitigation.