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CAG 007



**MASINDE MULIRO UNIVERSITY OF
SCIENCE AND TECHNOLOGY
(MMUST)
SCHOOL OF AGRICULTURE, VETERINARY SCIENCES AND
TECHNOLOGY (SAVET)**

MAIN CAMPUS

**UNIVERSITY EXAMINATIONS
2023/2024 ACADEMIC YEAR**

**MAIN EXAMS
OF
CERTIFICATE IN GENERAL AGRICULTURE**

COURSE CODE: CAG 007

COURSE TITLE: AGRICULTURAL ENTOMOLOGY

DATE: 21.12.23

TIME: 8-11AM

INSTRUCTIONS TO CANDIDATES

This paper is divided into two sections, **A and B**. Answer ALL Questions in SECTION A and any Two in SECTION B

MMUST observes ZERO tolerance to examination cheating

This Paper Consists of 2 Printed Pages. Please Turn Over

SECTION ONE ANSWER ALL QUESTIONS (40 MARKS)

1. a) Define and explain the importance of studying Entomology **(2mks)**

b) Explain how the study of Entomology contributes to development of Agricultural industry in Kenya and other parts of the world. **(4mks)**

c) State four contributions of insects to the ecosystem biodiversity **(4mks)**

2. a) Define integrated pest management in the study of Entomology and parasitology **(2mks)**

b), Use the pyramid prism method to illustrate **(IPM)** in pest management. **(6mks)**

c. Explain how imports of Agricultural seeds and propagation materials from other parts or countries contribute to spread of pest. **(2mks)**

3. a) Explain two challenges in eradication of pest spread in Agricultural production. **(6mks)**

c) Describe the importance of soil invertebrate as bio indicators in the ecosystem. **(4mks)**

4., Define the following terms

i) Definitive host. **(1mks)**

ii) Intermediate host. **(1mks)**

iii) Reservoir host. **(1mks)**

b) Classify the pest House fly to its Class order **(7mks)**

SECTION B: ANSWER ANY THREE QUESTIONS (30 MARKS)

1. a. Describe the procedure for collection of insect specimens from the field to the lab for the insect classification. **(7mks)**

b. As a pathologist how will you identify pest infestation in the Agricultural production field? **(3mks)**

2. Describe how the following internal parasites are transmitted and infected.

i. Hook worms

ii. Tapeworms

iii. Liver fluke **(6mks)**

Describe the test done on the following specimens' for intestinal worms' detection.

I) Human stool. **(2mks)**

II) Blood samples **(2mks)**

3. How would you conduct a field visit research for diagnostic research of pest and disease infestation? **(6mks)**

b) State four control mitigation for pest spread in Agricultural production. **(4mks)**

3. a). How do bioinformatics contribute to field pest management? **(7mks)**

b) Describe three biological methods of pests control **(3mks)**

