



UNIVERSITY OF ESWATINI

FINAL EXAMINATION PAPER

PROGRAMS: BACHELOR OF SCIENCE IN AGRONOMY YEAR 2 BACHELOR OF
SCIENCE IN AGRICULTURAL EDUCATION AND EXTENSION YEAR 2 BACHELOR
OF SCIENCE IN HORTICULTURE YEAR 2

COURSE CODE: CPR 201

TITLE OF PAPER: CROP PEST AND MANAGEMENT

TIME ALLOWED: TWO (2) HOURS

INSTRUCTION: ANSWER ALL QUESTIONS

Question 1 (20 Marks)

Define the following terms

- | | |
|--------------------------|-----------|
| a) Biofix | (4 Marks) |
| b) Base Temperature | (4 Marks) |
| c) Economic Injury level | (4 Marks) |
| d) Damage | (4 Marks) |
| e) Natural Control | (4 Marks) |

Question 2 (20 Marks)

Copy this table onto your answer book and complete it by filling in the blank spaces

Insect Order	Example	Mouth part	Damaging stages	Damage symptoms
Orthoptera				
Lepidoptera				
Hemiptera				
Isoptera				
Coleoptera				

Question 3 (40 Marks)

a) What is a Degree day

(5 Marks)

b) Imagine a stem borer was tested to have the following:

- A lower threshold temperature of 10°C,
- An upper threshold temperature of 70°C,
- October 1 as its Biofix date
- An estimated thermal energy of 97 ADD to reach 2nd instar

i. Copy the table shown below into your answer booklet and complete it by filling the accumulated degree days

(30 Marks)

Day	Max. Temperature	Min Temperature	Accumulated Degree Days
Oct 1	42	8	
Oct 2	35	9	
Oct 3	27	12	
Oct4	41	13	
Oct 5	37	9	
Oct6	32	6	

Oct 7	35	5	
Oct 8	42	28	
Oct 9	20	10	
Oct 10	30	20	

- ii. On which day of October do you think that the insect will be at its 2nd instar level?

(5 Marks)

Question 4 (20 Marks)

- a) Discuss the differences between natural control and biological control (10 Marks)
- b) Describe the steps followed in the implementation of a classical biological control programme (10 Marks)