



**L-Università
ta' Malta**

MATRICULATION AND SECONDARY EDUCATION CERTIFICATE
EXAMINATIONS BOARD

**SECONDARY EDUCATION CERTIFICATE LEVEL
2021 MAIN SESSION**

SUBJECT:	Agribusiness
PAPER NUMBER:	Controlled – Unit 3
DATE:	14 th May 2021
TIME:	10:00 a.m. to 11:35 a.m.

Name of candidate _____

I.D. number _____

School _____

Class _____

Answer **ALL** questions in the space provided.

Scenario

- Rabbits are bred as a food source, for shows or as domestic pets.
- The selection of a rabbit for such purposes depends mainly on the genetic (genotypic) and external (phenotypic) characteristics.

Question 1

K2 (4 marks)

Define the following terms:

a. allele;

(1)

b. gamete;

(1)

c. gene;

(1)

d. chromosome.

(1)

Question 2**K3 (4 marks)**

a. Outline Mendel's first law.

 (2)

b. Outline Mendel's second law.

 (2)
Question 3**K4 (4 marks)**

Distinguish between mitosis and meiosis by ticking (✓) the correct answer in Table 1.

Table 1: Mitosis and Meiosis

	Mitosis	Meiosis	
a. Four daughter cells are produced in this process.	<input type="checkbox"/>	<input type="checkbox"/>	(0.5)
b. This process involves sex cells.	<input type="checkbox"/>	<input type="checkbox"/>	(0.5)
c. Random assortment occurs in this process.	<input type="checkbox"/>	<input type="checkbox"/>	(0.5)
d. Identical daughter cells are produced in this process.	<input type="checkbox"/>	<input type="checkbox"/>	(0.5)
e. Formation of gametes.	<input type="checkbox"/>	<input type="checkbox"/>	(0.5)
f. Involves two cell divisions.	<input type="checkbox"/>	<input type="checkbox"/>	(0.5)
g. Process for cell replication.	<input type="checkbox"/>	<input type="checkbox"/>	(0.5)
h. May not occur in all organisms.	<input type="checkbox"/>	<input type="checkbox"/>	(0.5)

Please turn the page.

Question 4

K7 (4 marks)

a. Identify **ONE** cause and **ONE** preventive measure for the following diseases and disorders using Table 2a.

Table 2a: Causes and Prevention for diseases and disorders

Disease/Disorder	Cause	Prevention measure
i. Viral diseases	_____ _____ _____ (0.25)	_____ _____ _____ (0.25)
ii. Ear mites	_____ _____ _____ (0.25)	_____ _____ _____ (0.25)
iii. Sore hocks	_____ _____ _____ (0.25)	_____ _____ _____ (0.25)
iv. Respiratory diseases	_____ _____ _____ (0.25)	_____ _____ _____ (0.25)
v. Buckteeth	_____ _____ _____ (0.25)	_____ _____ _____ (0.25)

b. Identify **THREE** causes and **THREE** preventive measures for gastrointestinal problems using Table 2b.

Table 2b: Causes and Prevention for gastrointestinal problems

Cause	Preventive measure
i. _____ _____ (0.25)	_____ _____ (0.25)
ii. _____ _____ (0.25)	_____ _____ (0.25)
iii. _____ _____ (0.25)	_____ _____ 0.25)

Question 5

C4 (6 marks)

Justify **ONE** proper treatment for each of the following diseases, disorders and pests in rabbits.

a. Coccidiosis;

(2)

b. Mites;

(2)

This question continues on next page.

c. Sore hocks;

(2)

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