

The Open University of Sri Lanka
 Faculty of Engineering Technology
 Department of Agricultural & Plantation
 Engineering



Study Programme	: Bachelor of Industrial Studies Honours (Agriculture)
Name of the Examination	: Final Examination
Course Code and Title	: AGI3551 Agricultural biology
Academic Year	: 2020/2021
Date	: 25 th February 2021
Time	: 09.30 - 12.30 hrs

SECTION 2: Answer any four (04) questions.

- Describe the major meristematic tissues in plants (25 marks).
- Explain the secondary growth of dicotyledonous stems (25 marks).
- Write the Mendel's first and second laws (5 marks)
 - In beetles, grey colour (R) is dominant over black body colour (r). Long wings (W) are dominant over short wings (w). These two pairs of genes segregate independent of each other. The progeny resulting from crosses between phenotypes with unknown genotypes is given below. Explain the results and find the genotypes of parents in each incident (20 marks)

Parents	Progeny			
	Grey long	Grey Short	Black long	Black Short
Grey body long wings X Grey body, short wings	42	47	15	16
Grey body, short wings X Grey body, short wings	00	62	00	21
Black body, long wings X Grey body, long wings	41	00	42	00

- Explain the process of fruit formation (25 marks).
- Explain the reasons for chromosomal mutations (25 marks).
- Write short notes on following.
 - Meiosis and Mitosis (12.5 marks).
 - Influence of environment on heredity (12.5 marks).

