

**BINDURA UNIVERSITY OF SCIENCE EDUCATION
FACULTY OF AGRICULTURE AND ENVIRONMENTAL SCIENCE**

AGA 107 EXAM PAPER 1

**DEPARTMENT OF ANIMAL SCIENCE
IMMUNOLOGY**

3 HOURS (100 Marks)

INSTRUCTIONS TO CANDIDATES

Answer any FOUR questions. Each question carries 25 Marks

JUN 2023

1. Giving examples describe the following types of immunity:

a) Definition and components of the immune system.	[5 marks]
b) Innate immunity.	[5 marks]
c) Adaptive immunity.	[5 marks]
d) Passive immunity.	[5 marks]
e) Active Immunity.	[5 marks]

2. Blood is an important fluid connective tissue: Answer the following questions

a) List any five functions of blood.	[10 marks]
b) Identify the types of blood cells.	[3 marks]
c) Give any two general functions of White Blood Cells (WBCs).	[2 marks]
d) List the five types of White Blood Cells and indicate the roles of each WBC in fighting infections.	[10 marks]

3. Identify **twelve (12)** types of cells involved in immunity and their functions. [25 marks]

4. List **five key diseases** to vaccinate against for each of the farm animals:

a) Beef cattle.	[5 marks]
b) Dairy cattle.	[5 marks]
c) Goats.	[5 marks]
d) Broilers.	[5 marks]
e) Pigs.	[5 marks]

5. Discuss the factors to consider in developing a vaccination strategy. [25 marks]

6. Describe **the two major** components of the adaptive immune system. [25 marks]

END OF EXAM PAPER 1