

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

ESM112

HUMAN ANATOMY AND PHYSIOLOGY

DURATION: 2hrs

TOTAL MARKS: 70

INSTRUCTIONS TO CANDIDATES

5 NOV 2023

Answer THREE questions out of the following five questions. You must answer question ONE from SECTION A and any TWO questions from SECTION B.

SECTION A (COMPULSORY)

1. a) Give a brief comparison between Macrophages and Neutrophils. [6]
- b) Outline the different types of Acquired Specific Immunity. [4]
- c) Explain how the antibody-mediated response provides humans with immunity against pathogens. [20]

SECTION B

2. Explain how the anatomy of the Integumentary System aids in its functions. [20]

3. a) Explain the functions of the Nervous System. [10]
- b) Differentiate between the Somatic and Autonomic Nervous Systems. [10]

4. Write an essay on the digestive system. [20]

5. a) Draw and label the urinary system of a human being. [10]
- b) Explain the role of kidneys in controlling blood pH. [10]

End of Paper