

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

ESM 112

HUMAN ANATOMY AND PHYSIOLOGY

DURATION: 2hrs

TOTAL MARKS: 70

INSTRUCTIONS TO CANDIDATES

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) Discuss the hormonal and neural signals, showing the overlap between the mode of operation of the respective body systems. [20]
b) Explain transmission of impulses along neurons and across the synaptic gap. [10]

SECTION B

2. a) Describe the different types of functional articulations of the Skeletal System. [10]
b) Explain the process of Endochondral Osteogenesis. [10]
3. Describe the following human body cavities:
 - a) Dorsal cavity [5]
 - b) Ventral cavity [5]
 - c) Thoracic cavity [5]
 - d) Abdominopelvic cavity [5]
4. a) Describe metabolic processes. [5]
b) Explain with the aid of examples Homeostatic mechanisms. [15]
5. a) Define the following terms:
 - i) Anatomy [1]
 - ii) Physiology [1]

- iii) Ossification [1]
- iv) Immunity [2]
- v) Homeostasis [3]
- b) State the Layers of the Dermis [2]
- c) Draw a clearly labelled diagram of the endocrine system. [10]

End of Paper