

BINDURA UNIVERSITY OF SCIENCE EDUCATION

FACULTY OF SCIENCE AND ENGINEERING

DEPARTMENT OF SPORTS SCIENCE

BACHELOR OF SCIENCE HONOURS DEGREE IN SPORTS SCIENCE AND MANAGEMENT

SSM 114: HUMAN ANATOMY AND PHYSIOLOGY (1)

3 HOURS: 100 MARKS

Instructions to candidates

Answer four questions only

NOV 2023

Question 1

- a. State any three(3) components of the integumentary system **[3 Marks]**
- b. Explain any four (4) functions of the skin. **[8 Marks]**
- c. Describe the structure of the skin, with the aid of a diagram. **[14 Marks]**

Question 2

- a. Outline the five (5) types of bones and give an example of each. **[10 Marks]**
- b. Identify any five (5) bones that form the appendicular skeleton **[5 Marks]**
- c. Explain any five (5) functions of bones. **[10 Marks]**

Question 3

- a. Explain the four (4) interacting components that maintain homeostasis in feedback loops. **[8 Marks]**
- b. Explain how negative feedback controls high blood pressure **[17 Marks]**

Question 4

- a. Discuss any five (5) characteristics of the skeletal, cardiac and smooth muscles **[15 Marks]**
- b. Describe the structure of the heart. **[10 Marks]**

Question 5

- a. Explain the functions of any four (4) main organs of the alimentary tract. **[12 Marks]**

- b. Describe the structure and functions of the pancreas in a human body, with the aid of a diagram. [13 Marks]

Question 6

- a. Outline any five (5) endocrine glands, their location and the hormones they produce [15 Marks].

- b. List at least two (2) functions of the following hormones in the human body

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|-------------------------|-----------|
| i. Glucagon | [2 Marks] |
| ii. Growth Hormone (GH) | [2 Marks] |
| iii. Thyroxine (T4) | [2 Marks] |
| iv. Epinephrine | [2 Marks] |
| v. Insulin | [2 Marks] |

END OF PAPER