BINDURA UNIVERSITY OF SCIENCE EDUCATION

FACULTY OF FACULTY OF SCIENCE AND ENGINEERING

DEPARTMENT: SPORTS SCIENCE

PROGRAMME: BACHELOR OF SCIENCE HONOURS DEGREE IN SPORTS SCIENCE AND MANAGEMENT

COURSE CODE: SSM114(2): NARRATION: HUMAN ANATOMY AND PHYSIOLOGY

DURATION: 3 HOURS TOTAL MARKS: 100

INSTRUCTIONS TO CANDIDATES

Answer any **four** questions

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1. Describe the functions of the following components of the musculoskeletal system during physical activity.
   a) Bones (5 Marks).
   b) Muscles (5 Marks).
   c) Tendons (5 Marks).
   d) Ligaments (5 Marks).
   e) Joints (5 Marks).

2. Explain the physiological changes that occur in the cardiovascular system during acute exercise. (25 Marks).

3. Describe the chronic physiological adaptations of the respiratory system to regular aerobic training. (25 Marks).

4. Discuss the impact of the central nervous system in coordinating movement during physical activity. (25 Marks).

5. Discuss how the distribution and characteristics of fast and slow twitch muscle fibres influence athletic performance. (25 Marks).

6. Describe the role of the following hormones in the body's adaptation to physical training.

   a) Growth hormone (5 Marks).

   b) Testosterone (5 Marks).

   c) Adrenaline (5 Marks).

   d) Insulin (5 Marks).

   e) Cortisol (5 Marks).

END OF PAPER