

**BINDURA UNIVERSITY OF SCIENCE EDUCATION**

**FACULTY OF SCIENCE AND ENGINEERING**

**DEPARTMENT: SPORTS SCIENCE**

**BACHELOR OF SCIENCE HONOURS DEGREE IN SPORTS SCIENCE AND MANAGEMENT**

**SSM217(2): BIOMECHANICS IN SPORTS**

**DURATION: 3 HOURS**

**TOTAL MARKS: 100**

**JUN 2025**

**INSTRUCTIONS TO CANDIDATES**

**Answer two questions from Section A and two questions from Section B.**

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**Section A**

1. Most sports injuries are caused by forces.  
Describe the causes, signs, symptoms, and management of three common injuries in a sport of your choice. (20 Marks)
  
2. Explain how any four skills that are performed in a team sports of your choice contribute to "scoring" in the sport. (20 Marks)
  
3. Indigenous traditional games and dances are similar to modern sports in a number of respects.
  - a) Explain how any three Indigenous traditional games are played. (9 Marks)
  - b) Identify the sport or sports skill that they are similar to (3 Marks)
  - c) What sports abilities do they develop? (3 Marks)
  - d) What biomechanical or sports science concepts are associated with the Indigenous traditional games (5 Marks)

Section B

4. You are the coach of the basketball team and realize that your team has challenges in performing the jump shot.

**Task:**

Using your knowledge of qualitative biomechanical analysis, explain how you could address this technical challenge. (30 Marks)

5. You have been appointed a sports teacher in a school where students have a rich heritage of traditional games.

**Task:**

Explain how you would make use of this heritage to teach sports skills to these students. (30 marks)

6. Use your knowledge of biomechanics to comment on each of the following scenarios:

- a) School children who carry heavy satchels on one side tend to develop posture abnormalities over time. (5 Marks)
- b) Short basketball players tend to jump more than taller players when shooting (5 Marks)
- c) Allowing children to use scaled-down equipment enables them to learn sports better (5 Marks)
- d) Playing small-sided games improves performance in the full field (5 Marks)
- e) Playing football on wet ground slows down the game. (5 Marks)
- f) People who train with improvised equipment learn skills slower than those who use real equipment (5 Marks)

**END OF PAPER**