

BINDURA UNIVERSITY OF SCIENCE EDUCATION

FACULTY OF SCIENCE AND ENGINEERING

DEPARTMENT: SPORTS SCIENCE

MASTER OF SCIENCE IN SPORTS MANAGEMENT & MASTER OF SCIENCE IN SPORTS SCIENCE

SSM503(1): RESEARCH METHODS FOR EXERCISE SCIENCES

DURATION: 3 HOURS
(Plus 15 Minutes for Case Reading)

TOTAL MARKS: 100

NOV 2024

INSTRUCTIONS TO CANDIDATES

Section A is Compulsory. You are required to answer two (2) questions from Section B.

Section A

1. Your research team is proposing two separate studies focusing on the biomechanics of sprinting in elite athletes and addressing sports governance problems in your country and you have been asked to draft the methodology section for one of the projects.

Task:

Prepare a detailed draft of the assigned sections of the proposal. **(30 Marks)**

2. You are comparing the impact of two different training approaches on athlete performance. You have collected data on various performance indicators (e.g., flexibility, speed, strength, endurance) for athletes using each approach over a season.

Or

You are comparing the impact of two different sports management strategies on financial performance. You have collected data on various financial performance indicators using each strategy over a season.

Task:

- a. Discuss how you would use both parametric and non-parametric tests to analyze the data, depending on its distribution. (15 Marks).
- b. Explain how you would choose between the two methods and how you would present your findings. (15 Marks)

Section B

- 3. You are conducting a qualitative study on the experiences of female coaches in male-dominated sports.

Task:

- a. Outline the sampling procedure you would use to select participants for your study. (10 Marks)
- b. Discuss how you would determine the appropriate sample size for your research. (10 Marks)

- 4. You are conducting a study on the effectiveness of a new strength training program or the effectiveness of a new strategic management model. You need to validate the questionnaire that will be used to assess participants' perceptions of the program's effectiveness.

Task:

- a. Describe and justify the criteria you would use to select experts to validate your research instrument. (6 Marks)
- b. Explain how you would ensure that these experts are appropriate for validating the content and structure of the questionnaire. (7 Marks)
- c. Describe the step-by-step process which will be followed to conduct the validation. (7 Marks)

- 5. You are researching athletes' personal experiences with injury recovery and how they interpret their rehabilitation process. You plan to use in-depth interviews to gather qualitative data.

Task:

a. Describe how an interpretivist research philosophy would shape your approach to data collection and analysis. (10 Marks)

b. Explain how you would interpret athletes' subjective experiences and perspectives, and discuss the methods you would use to ensure a deep understanding of their individual meanings and contexts. (10 Marks)

6. You are conducting a study on the relationship between technology and officiating performance in sports. You need to create a questionnaire with Interval and Likert scale items to gather data.

Task:

Draft a series of questions that can effectively capture the data required. (20 Marks)

7. As a sports Innovation researcher, you have been tasked to make a presentation to a class of final-year postgraduate sports science students at a dissertation writing seminar on the steps they can take to transform a research idea focusing on the digital transformation of sport into an interventional research topic:

Task:

Illustrate how you will perform your assignment. (20 Marks)

END OF PAPER