

BINDURA UNIVERSITY OF SCIENCE EDUCATION
SFM 211: REASEARCH METHODS

Time: 3 hours

NOV 2024

Candidates may attempt ALL questions in Section A and at most two questions in Section B.
Each question should start on a fresh page.

Section A (40 marks)

Candidates may attempt ALL questions being careful to number them A1 to A4.

A1. Briefly explain the following terms

Sampling [3]

Research design [3]

Research proposal [4]

A2. Differentiate basic research from applied research. [10]

A3. Explain the following sampling approaches

(a) Snowball sampling [3]

(b) Quota sampling [3]

A4. Define literature review and explain its significance. [14]

Section B (60 marks)

Candidates may attempt two questions being careful to number them B5 to B7.

B5. (a) Discuss primary data under the following headings

- i) Sources [4]
- ii) Advantages [4]
- iii) Disadvantages [4]
- iv) Data collection methods [4]

(b) Discuss the main points that you will take into account while drafting a questionnaire? [14]

B6. a) Analyze the case study and descriptive approach to research. [10]

b) Distinguish between research methods and research methodology. [10]

c) What constitutes successful research proposal? [10]

B7. a) Explain the role of Graphs and Diagrams [10]

b) What are the types and general rules for graphical representation of data? [10]

c) Independent random samples are selected from two populations. Below are selected summary statistics.

Pop.	Mean	Stand. Dev	Sample size
1	62.00	10.00	17
2	54.00	6.00	10

i) Construct the 95% confidence interval for $\mu_X - \mu_Y$. [6]

ii) Obtain the P-value for the alternative $\mu_X \neq \mu_Y$. [4]

THE END