

SECTION A: ANSWER ALL QUESTIONS

1. Differentiate between Basic research and Applied research (2 marks)
2. Distinguish between research methods and research methodology (2 marks)
3. Briefly explain the steps of defining a research problem (5 marks)
4. Explain briefly the importance of conducting a literature review before starting a research project (3 marks)
5. Briefly state the importance of objectives in a research project (3 marks)
6. A study on ‘Delivery practices and associated factors among mothers seeking child welfare services at selected health facilities in Kisii County’, was carried out to determine the proportions of deliveries attended by skilled birth attendants as well the factors influencing the mothers’ choices of delivery. Level of education, having more than 3 deliveries in a lifetime, low knowledge on safe delivery practices and low socioeconomic status were found to influence delivery practices among these mothers.
 - a) Identify the independent and dependent variables in this study (3 marks)
 - b) Using any of the variables identified above, state an appropriate directional and non-directional alternative hypothesis from this study (2 marks)
7. Briefly explain three research philosophies (3 marks)
8. Briefly describe two ethical principles in research (2 marks)
9. Briefly describe two objectives of a budget when conducting Research (2 marks)
10. Distinguish between interval and Ratio scales and give an example of each (3 marks)

SECTION B: ANSWER ANY TWO QUESTIONS

1. Describe the main elements of a research proposal covering all the relevant areas (20 marks)
2. a) Define Universe, Target population, Study population, Sampling (4 marks)

b) Discuss probability sampling techniques used in research and explain how each can be used to select study participants (16 marks)

3. a) Explain citing examples the meaning of primary data and secondary data (4 marks)

b) Discuss Focus Group Discussions as a data collection method (16 marks)

4. The prevalence of prostate cancer has increased in your country over the last 5 years. Literature suggests that taking more than 2000mgs of calcium a day increases the risk of contracting prostate cancer. You want to examine the association between calcium intake and prostate cancer risk. You have limited time and funding to conduct this study.

a) What type of study would you conduct and why? (4 marks)

b) Indicate its specific strengths and weaknesses (4 marks)

c) Explain how you would go about selecting participants for your study (6 marks)

d) Construct a 2x2 table and indicate how you would classify your participants (4 marks)

e) What is the measure of association to calculate for this study and why (2 marks)