



MACHAKOS UNIVERSITY

University Examinations for 2022/2023 Academic Year

SCHOOL OF AGRICULTURE, ENVIRONMENT AND HEALTH SCIENCES

DEPARTMENT OF HEALTH SCIENCES

THIRD YEAR FIRST SEMESTER EXAMINATIONS

FOR BACHELOR OF SCIENCE PUBLIC HEALTH

HPH 300: RESEARCH AND RESEARCH METHODS

DATE:

TIME:

INSTRUCTIONS:

This paper consists of two sections A and B

SECTION A

Specific Instructions

- **This section has one question**
- **This question is COMPULSORY**
- **The question is 30 Marks**

QUESTION ONE (30 MARKS)

- a) Differentiate between the following terms as used in research methods (6 marks)
- Validity and Reliability
 - Qualitative and quantitative research methods
 - Descriptive and inferential statistics
- b) The table below displays some information on alcohol and cigarette consumption in various counties in Kenya.

County	Percentage number of person	
	Alcohol	Cigarette
Kajiado	6.5	4.0
Kisumu	6.1	3.8
Makueni	6.2	3.8
Mombasa	4.9	3.3
Bomet	5.6	3.5
Uasin Gishu	4.5	2.9
Machakos	5.9	3.2
Kitui	4.8	2.7

Use a bar graph to present the above data

(3 marks)

c) Machakos University has appointed you as a supervisor for one of the Diploma Public Health student. The student has approached you for a discussion on data collection and sampling techniques.

i) Explain why you would suggest to the student on using the questionnaire method

(3 marks)

ii) Warn the student of **three** (3) potential errors in circumstances of inadequate sampling

(3 marks)

d) You have been sponsored to undertake a study on decline of Covid-19 cases

i) Highlight two pre-field work logistics and issues that you must consider

(2 marks)

ii) Outline two field work logistics you must consider

(2 marks)

iii) Specify the differences in the research proposal and report for the above study

(3 marks)

e) Using APA style of citation, provide the reference list for the following book. (2 marks)

Book Title: Research Methodology: A step by step guide

Author: Ranjit Kamar

Publisher: Sage publication

Place of publishing; New Delhi

Date of publishing: 2014

- f) Some students have complained about the quality of food served in the university cafeteria. The university administration has asked the research methodology students to find out the level of satisfaction of students with the cafeteria
- i) Suggest a research title for this study (1 mark)
 - ii) Formulate two objectives for this study (2 marks)
 - iii) State a null hypothesis for this study (1 mark)
 - iv) Define the delimitations of this study (1 mark)

SECTION B:

Specific Instructions

- This section has four (4) question
- Answer any two (2) questions

Each question is 20 Marks

QUESTION TWO (20 MARKS)

- a) In July 2017 there was a cholera outbreak in your County where you are the county Public health officer. After the disease was contained, your County Public Health director asked you to write a research proposal regarding the community members' knowledge about the disease.
- i) Identify an appropriate title of the study (1 mark)
 - ii) State the purpose of the study (1 mark)
 - iii) Suggest **three** (3) topics for literature review (3 marks)
 - iv) Argue out why purposive sampling is preferable to other sampling methods (1 mark)
 - v) Define the target population's inclusion criteria (2 marks)
 - vi) Formulate a null and an alternative hypothesis for the above study (2 marks)
- b) Discuss features that must be considered in any research so as ensure minimum biases and errors (10 marks)

QUESTIONTHREE (20 MARKS)

- a) Otieno is a third year student in a certain college, he has difficulties in finding a legitimate research problem. Offer advice about where or how can he get started. (10 marks)

- b) Provide justifications on why the government should support and finance public health research initiatives (10 marks)

QUESTION FOUR (20 MARKS)

The following is a research topic. “Factors influencing drug and substance abuse among university students”. A case of Machakos University.

- a) Describe the criteria you will use to exclude participants from the above study (8 marks)
- b) Discuss the function and importance of literature reviews for the above study (8 marks)
- c) Identify the dependent and independent variables in the above study (2 marks)
- d) Suggest an appropriate study design for the above study (2 marks)

QUESTION FIVE (20 MARKS)

- a) You have a research article on “Christian views on use of vasectomy as a family planning method. Describe the methods you'll use to share your research findings in the article (10 marks)
- b) Describe the contents in the summary, conclusion and recommendations chapter in a research article (10 marks)