



**KISII UNIVERSITY**  
**UNIVERSITY EXAMINATIONS**

**FIRST YEAR EXAMINATION FOR THE AWARD OF THE DEGREE OF  
DOCTOR OF PHILOSOPHY IN PROJECT PLANNING AND MANAGEMENT  
FIRST SEMESTER, 2021/2022  
(JUNE-SEPTEMBER, 2022)**

**DPPM 901: ADVANCED RESEARCH METHODOLOGY**

**STREAM: Y1 S1**

**TIME: 3 HOURS**

**DAY: MONDAY, 9:00-12:00 PM**

**DATE: 03/09/2022**

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**INSTRUCTIONS**

- 1. Do not write anything on this question paper.*
- 2. Answer Question ONE [Compulsory] and any other TWO Questions.*

**QUESTION ONE (20Marks)**

- Critically analyse 4 types of probability sampling. (6Marks)
- Differentiate between null and alternative hypotheses and explain the stages involved in hypothesis testing. (4Marks)
- Explain the confidence limits 5% and 1 % and enumerate why researchers prefer 5%. (2Marks)
- Define the two types of errors in research. (2Marks)
- What are the major differences between one-tailed and two-tailed test? (4Marks)
- What is the full meaning of ANOVA? (1Mark)
- Where does ANOVA apply? (1Mark)

**QUESTION TWO (20Marks)**

- Discuss any five characteristics of Research. (10Marks)
- Examine five limitations of applying scientific methods of inquiry in research in your area of study. (10Marks)

**QUESTION THREE (20Marks)**

- a. Explain the various sources of research problems? (10Marks)
- b. Analyse the criteria for selecting a research problem. (10Marks)

**QUESTION FOUR (20Marks)**

- a. Suppose you want to study the relationship between availability of library services and student achievement, Identify four potential research questions. (4Marks)
- b. For each of these hypothetical research questions, identify which concepts and study populations would need to be operationally defined. Indicate what problems might occur if this was not done. (6Marks)
- c. Enumerate on the steps in the research process. (10Marks)

**QUESTION FIVE (20Marks)**

- a. What are the main functions of a research design and why is it important to have a research design before undertaking a study? (10Marks)
- b. Imagine you are planning to undertake a hypothetical research study in an area of interest to you. Identify the various stakeholder groups and assess the possible ethical concerns you need to be aware of from the perspective of each one of the groups. (10Marks)

**QUESTION SIX (20 Marks)**

- a. What determines sample size in qualitative research? (8Marks)
- b. There is a considerable overlap in the methods of data collection between quantitative and qualitative research. In spite of that they are different. What are the factors that differentiate them? (12Marks)