



***"Investing in Africa's Future"***

**COLLEGE OF ENGINEERING AND APPLIED SCIENCES**

**NMMS301: RESEARCH METHODS AND REPORT WRITING**

**END OF FIRST SEMESTER EXAMINATIONS**

**NOVEMBER 2024**

**LECTURER: DR. TENDAI ZENGENI**

**TIME: 3 HOURS**

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### ***INSTRUCTIONS***

You are required to answer questions as instructed.

Start **each** question on a new page in your answer booklet

Answer **4 (FOUR)** questions **ONLY**

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Credit will be awarded for logical, systematic and neat presentations

1. a) Critically discuss the importance and purpose of critical literature review to your research project. [10 marks]  
b) What is an independent Variable? Give examples. (5 marks)  
c) What is a Dependent Variable? Give examples. (5 marks)  
d) Explain Data Analysis and the techniques you know (5 marks)
  
2. a) Define Research (5 marks)  
b) What is Quantitative Research method? Give examples. (5 marks)  
c) What is Qualitative Research method? Give examples (5marks)  
d) What is Mixed Research method? Give examples. (5 marks)  
e) What is a Dependent Variable? Give examples. (5 marks)
  
3. Discuss any five of the following research strategies:  
  
a) Experiment  
b) Survey  
c) Archival Research  
d) Case Study  
e) Ethnography  
f) Action Research  
g) Grounded Theory  
h) Narrative Inquiry [25 marks]
  
4. Discuss the all the Data Collection Methods in Research. [25 marks]

5. Label the components of this Scientific Paper and explain IN FULL on a separate paper what you understand. [25 marks]

Journal of Mobile Engineering Doi: 5687123 2024

**Designing a Better Camera for Samsung**

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**ABSTRACT**

At present, compact camera modules are included in many mobile electronic devices such as mobile phones, personal digital assistants or tablet computers. They have various uses, from snapshots of everyday situations to capturing barcodes for product information. This paper presents an overview of the key design challenges and some typical solutions. A lens design for a mobile phone camera is compared to a downscaled 35 mm format lens to demonstrate

**Key words: lens, camera, mobile phone**

**8. INTRODUCTION**  
**9. BACKGROUND**  
**10. METHODOLOGY**  
**11. RESULTS**  
**12. DISCUSSION OF RESULTS**  
**13. REFERENCES**

6. a) What is a Journal Paper? (5 marks)  
b) Why do Scientists publish their work? (5 marks)  
c) Name 5 Referencing styles that you know. (5 marks)  
d) What is a Problem Statement? (5 marks)  
e) What is the Gap of the study? (5 marks) [25 marks]

**END OF EXAMINATION**