UNIVERSITY OF SWAZILAND
FINAL EXAMINATION PAPER

PROGRAM	:	**BACHELOR OF SCIENCE IN FSNT, COS, COSE AND TADM, YEAR III**
COURSE CODE	:	**COS 301**
TITLE OF PAPER	:	**RESEARCH METHODS**
TIME ALLOWED	:	**TWO (2) HOURS**
INSTRUCTIONS	:	**ANSWER QUESTION ONE (1) AND ANY OTHER TWO (2) QUESTIONS**

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QUESTION 1 (COMPULSORY)

(a) A researcher must find a problem and formulate it so that it becomes researchable. Identify **five (5)** guiding principles when selecting a research problem.   **(15 Marks)**

(b) A researcher wants to investigate the influence of extraction temperature at three levels on the yield of oil from oil seeds. Because the researcher could not obtain enough oil seeds from the same source he was forced to source it from three farms. Assuming the farms could be possible sources of variation, answer the following: :
    i.   Suggest an experimental design to carry out the research   **(3 Marks)**
    ii. Show the experimental layout (design) that suits this research and explain why you chose this layout.   **(10 Marks)**
    iii. Identify the factor and response variable(s)   **(2 Marks)**

(c) List **five (5)** ethical issues related to research.   **(10 Marks)**

[TOTAL MARKS = 40]

QUESTION 2

(a) Identify **five (5)** features of action research.   **(15 Marks)**

(a) Write short notes on the following: **(15 Marks)**
    i.   Developmental research
    ii. Control group
    iii. Probability sampling

[TOTAL MARKS: 30]

QUESTION 3

(a) Justification and methodology are important components of a research proposal. Briefly describe the content of these components.   **(15 Marks)**

(b) Name four **(4)** quasi-experimental designs and describe one in detail including advantages and shortcomings.   **(15 Marks)**

[TOTAL MARKS = 30]

QUESTION 4

(a) Describe **two (2)** ways of testing whether a research instrument measures what it is supposed to measure. **(12 Marks)**

(b) Outline the steps/procedure in testing hypothesis. **(10 Marks)**

(c) Name the different types of interviews and describe one in detail. **(8 Marks)**

[TOTAL MARKS = 30]