



(University of Choice)

MASINDE MULIRO UNIVERSITY OF SCIENCE AND TECHNOLOGY (MMUST)

MAIN CAMPUS

**UNIVERSITY EXAMINATIONS
2014/2015 ACADEMIC YEAR**

FIRST YEAR FIRST SEMESTER EXAMINATIONS

**FOR THE DEGREE
OF
MASTER OF SCIENCE IN WATER RESOURCES ENGINEERING**

COURSE CODE: CWE 813

COURSE TITLE: ADVANCED RESEARCH METHODS FOR ENGINEERS

DATE: 19TH DECEMBER 2014

TIME: 8.30AM – 11.30AM

INSTRUCTIONS:

1. Answer question **ONE** and any other **three** questions
2. Examination duration is **3 Hours**

MMUST observes **ZERO** tolerance to examination cheating

This Paper Consists of 3 Printed Pages. Please Turn Over.

QUESTION ONE

Identify a research topic that you would like to research on in your Master of Science program

- a) Give a summary of your study. **(6 marks)**
- b) State at least four objectives that you must meet for your study to be considered a success. **(4 marks)**
- c) Outline the possible sources of your research data. **(4 marks)**
- d) Explain briefly the methods that you will use to analyse data. **(4 marks)**
- e) Enumerate the ways in which you can disseminate your findings. **(4 marks)**
- f) Why should you publish the results of your research? **(3 marks)**

QUESTION TWO

- a) Explain the external factors can affect a research program and how they can be minimized. **(7 marks)**
- b) Discuss how a researcher can develop a convincing work plan and budget for a research. **(6 marks)**
- c) What are the things that can make a student delay in submitting a proposal? **(2 marks)**

QUESTION THREE

- a) State and explain the questions that must be answered by a research proposal for it to be considered innovative or not. **(5 marks)**
- b) State and explain the common proposal shortcomings that can be pointed out during defence. **(10 marks)**

QUESTION FOUR

- a) Outline the important elements of “literature review” in research. **(4 marks)**
- b) Explain how a worthwhile literature review should be conducted. **(11 marks)**

QUESTION FIVE

- a) Discuss the importance of the following stages of a research program?
- i.** Data analysis (**9 marks**)
 - ii.** Revising the rough draft (**6 marks**)