



(Knowledge for Development)

KIBABII UNIVERSITY

**UNIVERSITY EXAMINATIONS
2016/2017 ACADEMIC YEAR**

**SPECIAL EXAMINATIONS
YEAR ONE EXAMINATIONS**

**FOR THE DEGREE OF
MASTER OF SCIENCE IN
INFORMATION TECHNOLOGY**

COURSE CODE : MIT 822

COURSE TITLE : RESEARCH IN GREEN ICT

DATE: 29/09/2017 TIME: 2.00P.M. – 4.00P.M.

INSTRUCTIONS TO CANDIDATES

ANSWER ANY THREE QUESTIONS.

1. To comprehensively and effectively address the environmental impacts of IT, a holistic approach to issues is required.
 - (a) What is green wash? (2 marks)
 - (b) Discuss the three Rs of green Information Technology (6 marks)
 - (c) As the Green IT manager of Mwenyewe Sugar Company, discuss the complementary directions you will utilise to ensure the company fully realises its greening. (12 marks)

2. Software Quality attributes were originally created to minimize the cost or effort required during system development, maintenance and use, whilst maximizing the system's value. However, these attributes can also be used to analyse the (indirect) environmental and social impacts of a given system.
 - (a) What is meant by the term sustainable software (2 marks)
 - (b) Discuss how software quality attributes bring about environmental, social and economic benefits to contribute towards sustainability hence green IT (18 marks)

3. Businesses need compelling reasons to undertake and implement green IT strategies. Discuss any five such strategies (20 marks)

4. Discuss the dimension of green IT implementation strategy (20 marks)

5. Cloud computing is being considered in many computing cycle as a key driver of green Information Technology.
 - (a) Discuss the key characteristics exhibited by Clouds (12 marks)
 - (b) Discuss the how cloud computing would support green IT in achieving its goals and sustainability (8 marks)