FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA

SCHOOL OF INFORMATION AND COMMUNICATION TECHNOLOGY

DEPARTMENT OF INFORMATION AND MEDIA TECHNOLOGY

FIRST SEMESTER 2014/2015 EXAMINATION

| | |
|---|---|
| **COURSE CODE:** | IMT411 |
| **COURSE TITLE:** | GREEN IT |
| **CREDIT UNITS:** | 3 UNITS |
| **TIME ALLOWED:** | **2hrs** |
| **COURSE LECTURER(S):** | Mr. M. A. Enagi and Mrs. S. O. Etuk. |
| **NUMBER OF QUESTIONS:** | 4 |
| **NUMBER OF PAGES:** | 2 (INCLUDING THIS PAGE) |

## INSTRUCTIONS

- Answer all questions
- Do **not** use red pen
- Please use a clear handwriting
- This exam is closed book, closed notes, closed laptop and closed cell phone
- Please use non-programmable calculators only

Question 1.

(a) Define the following concepts:

    (i) Green IT

    (ii) Recycling

    (iii) Cloud Computing

    (iv) Refurbishing

    (v) Green-washing                                           (5 marks)

(b) Its pertinent to go green in our contemporary world. Mention two (2) motivating factors for the change.         (2 marks)

(c) The whole green aspects came about quite a few years back when the news that the environment was not a renewable resource really hit the people and started realizing that they had to do their part to protect the environment. Explain four (4) approaches to green computing.         (8 marks)

Question 2.

(a) Discuss three (3) ways in which IT can help an organization to be green while balancing between costs and benefits.         (6 marks)

(b) List four (4) chemical elements found in computer components and briefly explain how any three (3) pose a threat to the environment.         (8 marks)

(c) Is shopping with polythene-bags rather than paper-bags a better 'greenspirational' step? Give reason(s) for your answer.         (1marks)

Question 3.

(a) How does cloud computing help an organization to go green?     (2 marks)

(b) What do you understand by the term PaaS and SaaS?     (2 marks)

(c) List six (6) and explain any four (4) characteristics of cloud computing.     (7 marks)

(d) Discuss three (3) benefits and one (1) major challenge of cloud computing     (4 marks)

Question 4

(a) What is Sustainable Hardware and how can it be achieved?     (2 marks)

(b) What is e-waste and how can it be managed?     (4 marks)

(c) What is virtualization and how does it differ from cloud computing?     (4 marks)

(d) Mention five (5) importance of virtualization     (5 marks)