Federal University of Technology Minna
School of Information and Communication Technology
Department of Information and Media Technology

Course Code: CIT 411   **Course Title**: Green IT – 3units   **Time Allowed**: 2 hours
Instruction: Answer only one (1) question in Option A and three (3) questions in Option B.

OPTION A: (Answer only ONE (1) Question)

1. Using Federal University of Technology Minna as a case study, critically analyze the bottle-necks and the prospects of adopting green IT in educational institutions. (15marks)

2. Elucidate in detail how green IT will cut cost of Organizational activities and not jeopardizing the productivity of the staff and output of the Organization. (15marks)

3. Justify with factual findings Government and NGOs contribution towards the successful implementation of Green IT for sustainable development. (15marks)

4. Considering your wealth of knowledge in Cloud Computing and Green IT, converse in detail with critical analysis the strategies you will adopt when implementing Green IT in Banks as a financial institution. (15marks)

OPTION B: (Answer only THREE (3) Questions)

1. a. Discuss any five looms to green computing. (5 marks)

   b. Enumerate five traditions of gearing up to go green. (2½ marks)

   c. Distinguish with relevant examples if Server is a Hardware or Software. (2½ marks)

   d. With annotated diagram, discuss what you understand by the Cloud computing and Cloud Architecture (5marks)

2. a. There are certain motivational factors that will necessitate we go green in IT, briefly discuss any two of the traditions you know. (4 marks)

   b. Distinguish with appropriate examples the following: Reuse, Recycling and Refurbish (6marks)

   c. There are three PCs in an office that is 60W each and has a power rating of 0.06kWh per PC. If it costs N250 per kWh, how much will it cost to use two PCs for 1 year if it is ON for 5 hours daily? (5mark)

3. a. Manufacturers of computers use certain chemicals in production, discuss TWO of the chemical elements used by manufacturers and the problem they pose on the environment (6 marks)

   b. Discuss in detail with the appropriate diagram the THREE major cloud service models (7 marks)

   c. Explain what you understand by the abbreviation HPC in cloud computing? (2 marks)

4. a. Discuss any three (3) advantages and three (3) disadvantages of Cloud Computing (6marks)

   b. What do you understand by the term 'Virtualization'? (2marks)

   c. Mention any eight (8) commercial cloud offering. (2marks)

   d. A network server operating at a power consumption rate of 383.75W in idle state emits 360lbs of CO_2 in 10 hours. When it is in stressed state, it emits 440lbs of CO_2 in 5 hours. What is the total amount of CO_2 emitted in 30 days if the server operated in idle state for 3 hours and stressed state for 5 hours daily? (5marks)   **Best of Luck!!!**