Course Code: CIT 723   **Time:** 3 hours
Course Title: Operating System Design and Programming
Course Credit Unit: 3
Instruction: Answer Question one (1) and other any four (4) questions.

QUESTION

1. (a)   What is the Purpose of a network? *(2 marks)*
    (b)   Outline the steps involved in successfully delivering information between devices on a network. *(7 marks)*
    (c)   State any four benefits of networking. *(4 marks)*
    (b)   State the models for configuring Network Load Balancing and discuss any two. *(9 marks)*

2. (a)   What are network protocols? *(2 marks)*
    (b)   Describe Network Load Balancing *(5 marks)*
    (c)   State any four advantages and one disadvantage of Linux operating system. *(5 marks)*

3. Write short notes on the following:
        (a) Routing Information Protocol (RIP) *(4 marks)*
        (b) Service Advertising Protocol (SAP) *(4 marks)*
        (c) Internet Application Protocols *(4 marks)*

4. List four qualities of operating systems and discuss any three of the listed qualities. *(12 marks)*

5. Write short notes on the following describing and stating their functions:
    i) Internet Protocol (IP) *(6 marks)*
    ii)   Transmission control protocol (TCP). *(6 marks)*

6. Write short notes on the following describing and stating advantages and disadvantages of each:

    (a) Peer-to-Peer Network
    (b) State the advantages and disadvantages of Peer-to-peer network
    (c) Server-Based Network