



MASENO UNIVERSITY
UNIVERSITY EXAMINATIONS 2013/2014

SECOND YEAR SECOND SEMESTER EXAMINATIONS FOR THE
DEGREE OF BACHELOR OF SCIENCE IN INFORMATION
TECHNOLOGY
(CITY CAMPUS)

**CIT 210: NETWORK ADMINISTRATION AND
MANAGEMENT**

Date: 19th November, 2013

Time: 5.30 - 7.30 p.m.

INSTRUCTIONS:

- **SECTION A: Attempt Question 1 which is COMPULSORY (30 marks).**
- **SECTION B: Attempt ANY TWO questions (20 marks each)**
- **Start a new question on a new page.**
- **MOBILE PHONES are PROHIBITED in the examination room.**

QUESTION ONE (30 MARKS)

- a) Explain what network management is all about (3 Marks)
- b) Describe what is network architecture and what its description should include (8Marks)
- c) Explain what IP address conflict is and how do you solve the problem(6 Marks)
- d) What are the challenges faced by network administrators while they are managing an organization network (6 Marks)
- (e)Describe the TWO levels of access control provided when viewing network resources (4 marks)

QUESTION TWO (20 MARKS)

- (a)Identify and explain the network design methodology that can be followed when designing a network for an organization. Explain what is involved in each and every stage(7 marks)
- (b)Describe the factors to be considered when setting up a network(7marks)
- (c)Describe the following elements of networking(6 marks):
 - (i) Fault Management
 - (ii) Configuration management
 - (iii) Configuration Documentation

QUESTION THREE (20 MARKS)

- (a)You are asked to design a network for an organization with three buildings. Each building is to host a computer lab with 20 computers each. Explain the networking devices that will be used and also giving the design of the network in diagrams.(10 marks)
- (b)Computer security is vital in protecting the organization's systems. Describe all the security gadgets and how you will use them in protecting the organization network. Include the security procedures and policies that you feel can be applied to the network(10 marks)

QUESTION FOUR (20 MARKS)

- (a)Explain the concept Fault Management.(3 marks)
- (b)Outline the steps involved in trouble shooting faults in a network.(5 marks)
- (c)Describe the steps of trouble shooting faults using a simple flow chart diagram.(6 marks)
- (d)Draw a flowchart diagram showing troubleshooting while identifying the demographic scope of a problem. (6 marks)

QUESTION FIVE (20 MARKS)

- a) Name and describe three types of backups [6 Marks]
- b) Describe what needs to be backed up on a network system [6 Marks]
- c) Describe the procedure of backing up of systems in a networked environment and also explain why there is need to backup systems [8 Marks]