Award:	*International Advanced Diploma in Computer Studies*
Module Title:	*Internet System Administration*
Assignment Title:	*Internet System Administration*
Examination Cycle:	*September 2008*
Candidate Name:	
NCC Education Candidate No:	
Submission Date:	

Important Notes:

- ❖ Plagiarism – **using the thoughts or writings of others as though they were your own without acknowledgment** – is an offence.
- ❖ It is your responsibility to familiarise yourself with the NCC Education Academic Dishonesty and Plagiarism Policy.
- ❖ Any thoughts, ideas or quotations which don't belong to you must be fully attributed to their sources using the appropriate **in-text citation** and a **bibliography** as described in the Harvard Referencing System. Authors' work that is used in your assignment and not referenced is plagiarism.
  At **diploma** level work omitting either citations or bibliography will be limited to a maximum 50 %; at **advanced diploma** level to a maximum 45%; at **Honours and PgD** level to a fail.
- ❖ You must sign the Student Declaration as detailed in the 'Statement and Confirmation of Own Work' found at the back of every NCC Education assignment. You must attach the signed and completed form to your assignment.
- ❖ You could lose marks if you exceed the recommended word count by more than 10%.
- ❖ A digital copy as well as a paper copy must be submitted (on disk or similarly acceptable medium). Media containing viruses, or media which cannot be run directly, will result in a **FAIL grade** being awarded for this module. **Electronic media will also be checked for plagiarism, so beware!**

Marker's comment:

Moderator's comment:

Mark: **Moderated Mark:**   **Final Mark:**

Introduction

Internet Systems Administration is a vast and developing subject. Its components can comprise of diverse topics like system administration, network administration and implementation and management of Internet Protocols etc.

There are four Tasks in this assignment focusing on some very important aspects of system administration. These Tasks provide opportunities to the students to demonstrate that they have the knowledge and skills in Internet System Administration expected of a graduate of IADCS.

Aim

The aim of this assignment is to provide an opportunity for students to demonstrate that they have acquired skills and abilities in the area of Internet Systems Administration. The students will also be provided with an opportunity to demonstrate that their knowledge and skills are hands-on and can be applied in real life situations.

Task 1 – 30 Marks

P2P versus Client server networks

Briefly describe (**approximately 1500 words**):

a) The motivating factors for the development of Peer-to-Peer network architecture.
b) THREE major types of P2P networks.
c) THREE vulnerabilities particularly linked with P2P technologies.
d) Common approaches for building trust relationship between entities on a network.
e) Software tools employed to develop trust for a client, a server and the client server network.
f) Software tools employed to develop trust for peers and also, the P2P network.

Task 2 – 24 Marks

XML based technologies

Briefly describe (**approximately 600 words**):

a) The differences between the server side development and service centric development.
b) The differences between the deployment objectives of XML and HTML.
c) Why a well formed XML document may, or may not, be a valid document.

Task 3 – 25 Marks

DNS

Compile a report (**approximately 1000 words**) on the following:

a) Define the terms network ID and subnet mask.
b) Identify the class of IP addresses that will be used for an organisation having a network of computers between 1000 to 1500. Explain your reason for arriving at this solution.
c) Using the site http://www.4domains.com, check that the domain name you desire is still available (assuming that it would be registered).
d) Design a subnetting system for the organisation in question, each subnet should contain no more than 100 computers. Show the overall network using a diagram. Support your proposal with sound technical arguments.
e) Describe the range of IP addresses in at least TWO of the subnets.

Task 4 – **21 Marks**
IIS Installation
Compile a report (**approximately 1000 words**) based on the following activities:
a)   Show that IIS is installed on your machine. If not, install it.
b)   Show that "Start" and "Stop" work for IIS.
c)   Locate the directory to which IIS maps the wwwroot. Show that the folder in this directory on your computer also appears in the IIS console.
d)   Use localhost to show the default web page.
e)   Create a virtual directory and demonstrate that it works.

Guidance
It is vitally important that candidates use their tutors as support and as a resource, throughout the assignment. Candidates should fully complete a Task and consult with their tutor for guidance before starting the next Task. The assignment Tasks require a considerable amount of background knowledge, both theoretical as well as, product specific. Candidates can enrich their knowledge by searching the Web and making use of any reference library before embarking upon the practical aspects of the assignment.

Submission Requirements
A single word-processed document, of no more than **4500 words**, containing all documentation (such as reports, explanations, and output reports etc.) pertaining to the four Tasks.

In particular the document should include the following:
- The solutions to the four Tasks.
- A Table of Contents, bibliography and appendices where necessary
- All information / data that can be used to test various aspects of your work on an appropriate medium (floppy disk, zip disk and CD-ROM etc.).
- Output of testing and experimentation on an appropriate medium (floppy disk, zip disk and CD-ROM etc.) in a form, which can be run DIRECTLY from the supplied media.
- Screen dumps should be produced in support of your explanations where possible.

The document should be signed and dated by your tutor.

The document should be submitted both in paper form and digital form on a disk.

Warning: All media must be virus free!
Media containing viruses, or media which cannot be run directly, will result in a FAIL grade being awarded for this module.

All candidates must read and understand NCC Education's policy on 'Academic Dishonesty and Plagiarism' and complete the attached form 'Statement and Confirmation of Own Work'. You must attach the completed form to your assignment.

Statement and Confirmation of Own Work

Programme/Qualification name:

All NCC Education assessed assignments submitted by students must have this statement as the cover page or it will not be accepted for marking. Please ensure that this statement is either firmly attached to the cover of the assignment or electronically inserted into the front of the assignment.

Student declaration

I have read and understood NCC Education's Policy on Academic Dishonesty and Plagiarism.

I can confirm the following details:

Student ID/Registration number:

Name:

Centre Name:

Module Name:

Module Leader:

Number of words:

I confirm that this is my own work and that I have not plagiarised any part of it. I have also noted the assessment criteria and pass mark for assignments.

Due Date:

Student Signature:

Submitted Date: