



UNIVERSITI TUN HUSSEIN ONN MALAYSIA

**FINAL EXAMINATION
SEMESTER II
SESSION 2010/2011**

COURSE NAME : NETWORK OPERATING SYSTEM

COURSE CODE : BIT 3263

PROGRAMME : BACHELOR OF INFORMATION TECHNOLOGY

EXAMINATION DATE : APRIL / MAY 2011

DURATION : 3 HOURS

INSTRUCTION : ANSWER ALL QUESTIONS.

THIS QUESTION PAPER CONSISTS OF FOUR (4) PAGES

- Q1**
- (a) List **THREE (3)** differences between network operating systems and stand alone operating system. (3 marks)
 - (b) Describe **THREE (3)** methods of assigning an IP address to a networked host. (9 marks)
 - (c) Discuss why Business Continuity Plan (BCP) is important in modern network design. (6 marks)

- Q2**
- (a) Explain the flow of a basic Dynamic Host Configuration Protocol (DHCP) lease based on **Figure Q2(a)**. (4 marks)

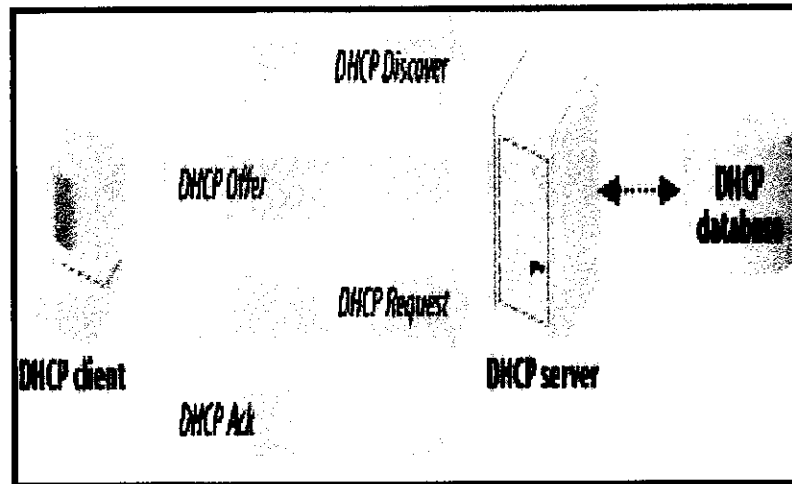


Figure Q2(a)

- (b) The Freedom Company has a network segment for its sales agents. The Windows 2000 DHCP server issues a block of 40 addresses to 120 of these sales agents. Because these agents are in and out of the office, no more than 40 of them are on the network at one particular time.

What needs to be done to the DHCP server to ensure that users get an IP address each time they log in?

(6 marks)

- (c) You are the Windows 2000 administrator for Gading Emas Agency. When checking on your DHCP server, you notice that DHCP requests are much higher than the number of users on the network.

Recommend suitable solution for this problem.

(4 marks)

- (d) Explain **TWO (2)** types of queries in Domain Name Resolution. (6 marks)
- (e) Describe **FIVE (5)** elements in an Active Directory hierarchical container. (5 marks)

Q3 Based on the following case study :

DUO Construction has more than 50 years experience in operation. Currently it has more than 1,800 employees and serves 10,000 customers in Malaysia. It strives to maintain sustainable growth from prudent utility expansion, effective customer service, efficient processes and productive employees.

The company's goal is to provide management teams with real-time access to company data so they could quickly adjust project budgets and allocate resources as project and overall business requirements change. It need an integration application that could cost effectively support business process updates.

Currently, it does not have any Web-based applications or self-service system that could provide customers with online payment options and account history. As for the internal business process, no central repository contains key business data.

So, the only way to access the project details such as pipeline and building construction projects was through a manual report and analysis which could take weeks. By the time the report was available, the data was no longer useful.

- (a) Recommend a suitable solution for implementing the above case study? Justify your answer. (10 marks)
- (b) Assuming DUO Construction wants to upgrade their current network operating system, discuss each of the following phases to upgrade their network operating system:
- (i) discovery phase
 - (ii) design phase
 - (iii) pilot phase
- (9 marks)
- (c) Recommend a suitable backup plan for this company. (6 marks)

Q4 Given the following scenario.

You have been hired by a large restaurant called KMS. KMS has a small network of 20 client workstations and a server. Seven workstations are inside the restaurant to place customer orders. Three of the workstations are used by the owner and the management staff, and the rest are in the kitchen for the chef's staff. In addition, the owner and management staff use portable computers to connect to the network.

- (a) Is there a way for them to take files from certain folders to work on at home and update their work on the server the next day? Explain. (6 marks)
- (b) The owner has heard that hard drives can fail at times and he is worried that if the drive on the server fails the restaurant operations will come to a halt. Recommend a fault tolerance method to put the owner's mind at ease. (7 marks)
- (c) The Chef is extremely worried about losing his secret recipes; therefore he would like his recipes to be backed up every night. Recommend a removable storage backup for KMS server. (6 marks)
- (d) Managers want to be able to print schedules on any printer at any restaurant even if traveling and in a motel with a laptop. Explain what you would have to do to allow managers to do this and how they would reference the printer. (6 marks)