UNIVERSITI TUN HUSSEIN ONN MALAYSIA

FINAL EXAMINATION
SEMESTER II
SESSION 2012/2013

COURSE NAME	:	NETWORK OPERATING SYSTEM
COURSE CODE	:	BIT 32603
PROGRAMME	:	3 BIT
EXAMINATION DATE	:	JUNE 2013
DURATION	:	3 HOURS
INSTRUCTION	:	ANSWER **ALL** QUESTIONS

THIS QUESTIONS PAPER CONSISTS OF **SIX (6)** PAGES

Q1 (a) Define **TWO (2)** differences between operating systems for computers that are networked and computers that stand alone.

(4 marks)

(b) Discuss **TWO (2)** methods of assigning an IP address.

(6 marks)

(c) Your company, XYZ International, has expanded to the southern region of Malaysia. It has sales marketing department which consist of four staff. They will be directly associated with the XYZ International headquarters in Cheras.

The company wants you to delegate group policy authority for the sales marketing department in the southern region by creating a new Organizational Unit (OU). They also have assigned an administrator to manage the sales marketing staff on the network.

Table 1: List of User Account in Sales Marketing Department

Last Name	First Name	User Name	Password	Change Password
Bush	John	Bush	JBush	Must
Amri	Lazim	Amri	(blank)	Must
Amran	Rahim	Amran	(blank)	Must
Walker	Abraham	Walker	AWalker	Must

Based on **Table 1**, answer the following questions using Windows Server features:

Prepare a detail procedure on how to:
(i) create a new OU.
(ii) create the user account within the OU.
(iii) delegate authority of the new OU to an administrator.

(15 marks)

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Q2 (a) Based on the following case study, answer the questions.

> The Multnomah County Sheriff's Office (MCSO) of Portland, Oregon, is a public service organization that provides civil, corrections, and law enforcement services to Multnomah County. MCSO currently manages two jails, with about 1,300 beds, including 40,000 bookings and releases annually. MCSO is also contracted to provide law enforcement services to Wood Village, Maywood Park, and all of the unincorporated areas of Multnomah County, Oregon. MCSO has 800 full time employees who are augmented by many dedicated volunteers and reserve deputies
>
> The CJIS (Criminal Justice Information Systems) Unit of the Multnomah County Sheriff's Office recently faced an increase in network service duties coupled with a reduction in the staff. These network service challenges stemmed from the requirement to share data improve work flow and change how they archive and manage data.
>
> Daily monitoring of servers and network services needed to be automated and simplified within their 24 x 7 environment. "We needed to become proactive in supporting our servers instead of the reactive position we often found ourselves in," commented Andy Potter, IT Manager. "We needed to know that shared drives were reaching capacity, before a user called unable to save a document, or we needed to know that email was not flowing because a log file was not being deleted after the backup finished. End users don't care why something is down, just that they can't work. We have to keep things working, so end users can do their jobs."
>
> It was critical that MCSO servers stay up and running and that the CJIS Unit have proactive monitoring in place. This would allow them to be able to resolve issues before they became problems, thereby reducing downtime and keeping information available to staff working in the jails, on the river patrol and out on the streets. MCSO's environment supports 65 network servers, including Exchange e-mail servers, SQL servers, DHCP / Print servers, and a SAN to store shared data. MCSO supports this matrix of network servers and appliances with eight IT Staff
>
> (Source : http://www.tntsoftware.com/elmdocuments/casestudies)

(i) Recommend a suitable solution for implementing server monitoring for the organisation. Justify your answer.

(10 marks)

(ii) Suggest suitable network monitoring application for this organization. Justify your answer.

(5 marks)

(b)   The Freedom Company has a network segment for its sales agents. The Windows Server 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 Server 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)

Q3 Based on the following case study, answer the questions.

Hyundai Car (M) Sdn Bhd is one of the fastest growing car companies in the Malaysia. The company is a subsidiary of Lex Service and one of the biggest vehicle leasing companies in the Malaysia.

When they wanted to improve communications with the general public about the location and services at their 160 Malaysia dealerships, Hyundai decided that a web environment was the way to go.

But Hyundai wanted to concentrate its own IT resource on the other projects and so they looked for a solution provider that would be able to deliver a fully hosted and managed service with 24x7 support and robust security.

Hyundai has 160 dealerships across the Malaysia and needed a way of giving customers access to information about them, for example location, which cars are available and finance options, all in single repository. The requirement for greater co-ordination and 24 hour information availability was ideally suited the Internet environment but needed to be integrated with Hyundai's other key marketing projects.

Hyundai wanted to concentrate its own IT resource on other projects and so needed a supplier that would be able to deliver a hosted web site environment in a very short timescale along with twenty four hour support and robust security.

(a) Recommend a suitable solution for implementing the company's network and it operating system? Justify your answer.

(10 marks)

(b) Assume that Hyundai Car (M) Sdn Bhd wants to upgrade their current network operating system. Prepare **THREE (3)** steps involves in the following phases:

    (i)   discovery phase
    (ii)   design phase
    (iii)   pilot phase

(9 marks)

(c) Recommend a suitable backup plan for the important data of the company.

(6 marks)

Q4   Based on the following case study, answer the questions.

> You have been hired by a large restaurant called KMS. KMS has a small
> network of 20 client workstations and a Windows Server 2008. Seven
> those workstations are inside the restaurant and are used by the
> table servers 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.

(a)   The owner and management staff use portable computers to connect to the network. 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 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 loosing 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 using laptop even during traveling. Explain what you should do to allow managers to do this and how they would reference the printer.

(6 marks)

END OF QUESTION