



**Higher National Diploma in Information Technology**

**Second Year, Second Semester Examination - 2015**

**HNDIT2421 - Server Administration**

**Instructions for the Candidates:**  
Answer any five questions

No of Pages: 03  
No. of Questions: 06  
**Time: Three (03) hours**

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Q1

- i) Give two disadvantages of client server networking than peer to peer? [3 marks]
- ii) What is the different between Linux kernel and Linux distribution? [3 marks]
- iii) Give three default Linux folders and its purpose? [3X2=6 marks]
- iv) Give Linux command to list the files in a directory? [4 marks]
- v) Give the Linux command to start the SSH service ? [4 marks]

**[20 marks]**

Q2.

- i) Give the name of Microsoft Windows webserver? [3 marks]
- ii) What is the role of DNS servers? [4 marks]
- iii) Define following terms related to DNS? [3X3=9 marks]
  - (a) Groups      (b) user      (c) Zone:
- iv) Explain the use of port numbers and what are the purpose of ftp port numbers 20 and 21?

[4 marks]

**[20 marks]**

Q3

i) Give the Linux terminal command to install a package named 'vsftpd'? [2 Marks]

ii) List the benefits of writing shell scripts? [3 Marks]

iii) The administrator of a Linux server has typed the following command on the Linux terminal:

```
chkconfig sshd on
```

(i) What is the purpose of this command? [3 Marks]

(ii) Give the terminal command to block the execution permission to a shell script named myscript.sh. [5 Marks]

iv) Write a Linux shell script (bash) to display numbers from 10 to 100? [7 Marks]

**[20 Marks]**

Q4.

i) Give the Linux terminal command to install vsftpd on your Linux server? [1 Marks]

a) Give the Linux command to stop the firewall? [2 Marks]

b) Assume IP address of the FTP server is 192.168.1.12. Give the command to open the connection to this ftp server from a client? [2 Marks]

c) Give the usages of the following ftp commands? [3 Marks]

1.cd      2.mget      3.put

d) Give the command to create a directory called 'myfiles' on this ftp server? [3 Marks]

ii) What is the role of DHCP server? [3 Marks]

iii) Assume your PC is a windows client with the configuration of dynamic IP. Give the command to release the IP address of your PC? [3 Marks]

iv) What is the role of the Linux file /etc/dhcp/dhcpd.conf ? [3 Marks]

**[20 Marks]**

Q5.

Some contents of /etc/dhcp/dhcpd.conf file is given below. Assume all clients of this network are configured as automatic IP configuration?

```
subnet 192.168.2.0 netmask 255.255.255.0
{
```

```
option routers          192.168.2.1;
option subnet-mask     255.255.255.0;
option domain-name-servers 192.168.2.200;
range                  192.168.2.10 192.168.2.100;
}
```

- i) How many addresses can be leased by this DHCP server?
- ii) What is the gateway address of windows client computers belongs to this network?
- iii) What is the preferred DNS server address of windows client computers belongs to this network?
- iv) Explain the importance of DHCP server on wireless networks? [5X4=20 Marks]

**[20 Marks]**

Q6.

Write short notes for the following topics:

- i) Firewall:
- ii) File server:
- iii) Apache server:
- iv) Proxy server:

[4X5=20 Marks]