



**NAMIBIA UNIVERSITY
OF SCIENCE AND TECHNOLOGY**

FACULTY OF COMPUTING AND INFORMATICS

DEPARTMENT OF COMPUTER SCIENCE

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| SECOND OPPORTUNITY / SUPPLEMENTARY EXAMINATION QUESTION PAPER | |
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THIS QUESTION PAPER CONSISTS OF 4 PAGES
(Excluding this front page)

INSTRUCTIONS

1. Answer **all questions**.
2. Write all your answers in the answer booklet provided and number every question.
3. Please, ensure that your writing is **legible, neat and presentable**.
4. Marks/scores per question are given in square brackets [].
5. Do not use or bring into the examination venue books, programmable calculators, mobile devices and other material that may provide you with unfair advantage. Should you be in possession of one right now, draw the attention of the examination officer or invigilator.
6. All things that should **not** be marked, e.g. any "rough work", have to be crossed out unambiguously.

1. True or False

[10]

- (a) RAID level 5: - Includes striping, error correction and checksum verification, and all are spread across all of the disks.
- (b) A domain is a logical grouping of network objects such as user, computers and network devices.
- (c) The windows command **nslookup** can be used to test DNS functionalities.
- (d) **Bind-chroot** is used to increase security in Linux DNS.
- (e) To append text from a given file to an existing file we use the symbol >
- (f) The command **dir** in windows is the same as **ls** in Linux.
- (g) The & is used to resume background jobs in Linux.
- (h) Windows scheduled tasks are called cron jobs in Linux.
- (i) Command net user is used to check if an account is disabled or not.
- (j) Packages with extension **.msi** can be displayed using GPO.

2. Short Questions

- (a) You are employed as the Systems Administrator for Contoso Enterprise. One day you decide to create Group Policies on the local machine and on the Organisational Unit level. After you refresh your group policies you discovered that the policies you applied on the Organisational Unit level were not applied. Explain why the system is behaving this way. [2]
- (b) What is meant by lockout policy and password history in Windows? [2]
- (c) Give a clear distinction between a DNS recursive lookup process and iterative lookup process. [2]
- (d) What do you understand by group policy object? [2]
- (e) What do you understand by incremental backup? State one advantage of incremental backup. [2]
- (f) In systems administration, APT is an acronym for? [1]
- (g) What do you understand by task-based delegation in Active Directory? [2]

- (h) With reference to the activities labeled A in the migration activities in figure 1 below, what is prototyping and why is it used? [2]

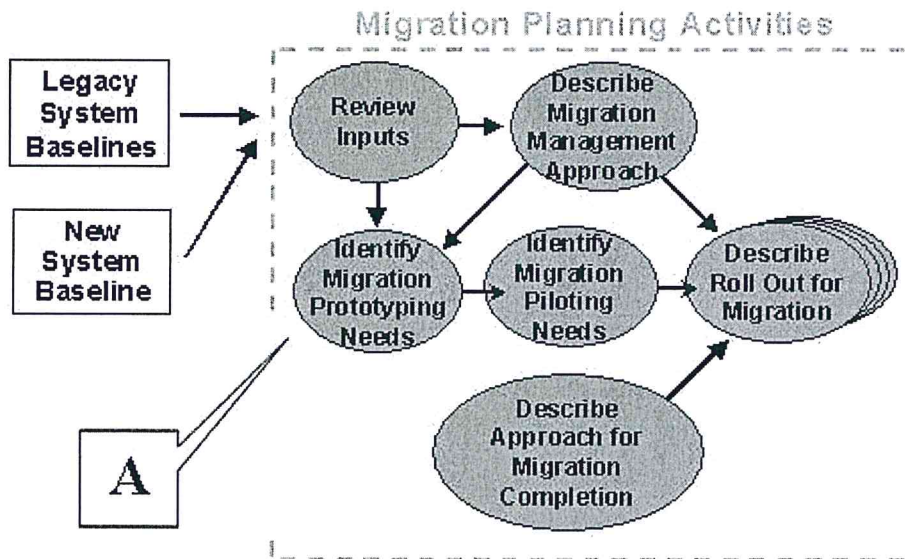


Figure 1

3. Long Questions

- (a) Analyse figure 2 and answer the questions which follows. Figure 2 is a screen shot from a Windows 10 Client machine.

```

Administrator: C:\Windows\system32\cmd.exe - nslookup
C:\Users\Administrator>nslookup
Default Server: station254.example.com
Address: 10.100.54.254

> web
Server: station254.example.com
Address: 10.100.54.254

Name: web.example.com
Addresses: 10.100.54.201
           10.100.54.202
           10.100.54.200

> set q=mx
q=mx
> example.com
Server: station254.example.com
Address: 10.100.54.254

example.com      MX preference = 10, mail exchanger = prt.example.com
example.com      MX preference = 9, mail exchanger = txr.example.com
prt.example.com  internet address = 10.100.54.50
txr.example.com  internet address = 10.100.54.51
>
  
```

Figure 2

- (i) Using information shown in figure 2, what is the fully qualified domain name of the primary DNS server for this client machine. [1]
- (ii) How many email servers are responding to example.com domain? List their fully qualified domain names and corresponding IPs [2]
- (iii) You have been hired as a consultant to troubleshoot problems existing at **Example cc**. They told you that emails are being delivered to one server and yet they want all emails to be delivered to all available mail servers. What will be your solution to solve this problem? Use only information from figure 2. [3]
- (iv) Assuming users can access the website for **example cc** by typing **web.example.com**. which server will respond when users type **web.example.com** and why? [Hint: there are 3 addresses for the same url] [2]
- (b) As an administrator, you can administer active directory running a server 2012 core edition using the command prompt. Identify the error in the following command for adding a user to a domain controller active directory and users. [2]

```
net user jack /add /domain
```

- (c) You created a user on a domain controller using the following command:

```
dsadd user "cn=sad,cn=users,dc=cs,dc=net" -ln Sad622S -fn Saduser
```

After creating the account, you discovered that the account **sad** cannot logon to your domain controller and gives an error message "*account disabled. Contact your administrator*". From the command used, why would the account be disabled?

[2]

4. Unix Commands

Write down the commands to perform the following:

- (i) Check all group membership(s) for the user **sad**. [1]
- (ii) List all processes running. [1]
- (iii) Change the expiry date of an existing user **john** to **20 December 2019**. [2]
- (iv) Display a list of all shells installed on your machine. [1]

5. Scripting

- (a) Give the result of `expr 17 + 7 / 3`. [2]
- (a) Write a script that prompts the user for a filename and then changes the permissions to: `-rwxr-xr--` [3]
- (b) The script below will not run correctly due to some syntax errors. Identify these errors. [3]

```
echo "Enter the values of num1, num2 and num3"
read num1 num2 num3
num4=`expr $num1 \+ $num2 \+ $num3`
product=`expr $num1 * $num2 * $num3`
echo "The sum of the three numbers is num4"
echo "The product of the three numbers is product"
```

End of Question Paper