



**NAMIBIA UNIVERSITY
OF SCIENCE AND TECHNOLOGY**

FACULTY OF COMPUTING AND INFORMATICS

DEPARTMENT OF COMPUTER SCIENCE

QUALIFICATION:	BACHELOR OF COMPUTER SCIENCE	
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COURSE:	SYSTEMS ADMINISTRATION	COURSE CODE: SAD622S
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DURATION:	2 HOURS	MARKS: 50

SECOND OPPORTUNITY / SUPPLEMENTARY EXAMINATION QUESTION PAPER	
EXAMINER(S)	SHADRECK CHITAURO, SHOOPALA NAMBAHU, TERESIA ANKOME
MODERATOR:	ISAAC NHAMU

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) Hyper-V provides services and management tools for creating and running virtual machines and their resources. This can be found on Windows Server 2012 as well as Windows 8.
- (b) When joining the client computer to a domain you need to set the preferred DNS server on client side as the IP address of your domain controller.
- (c) The windows command **ping** can be used to test DNS functionalities.
- (d) MMC can be used to create or edit GPO in windows 10.
- (e) When dealing with file descriptors, **>>** is used to capture errors into a text file.
- (f) The **A** record in DNS is found in the forward lookup zone.
- (g) If you create an account using **dsadd** command without specifying the password the account will be created but disabled.
- (h) Default **user** and **group id** for root account in Linux is **0**.
- (i) In Linux after installing **bind-chroot** you can find zone files in **/var/named**.
- (j) Windows Server 2012 core edition has no graphical user interface.

2. Short Questions

- (a) What do you understand by task based delegation? [2]
- (b) Give two functions of the Global Catalog? [2]
- (c) Give one example of a software which can be used for imaging [1]
- (d) What is a group policy object? [2]
- (e) SAD CC is having a problem with their Linux mail logs file in **/var/log/maillog**. You have been hired as an expert and you were told that the clue to the error can be found from line 25 through 50 of the log file. What command can you use to display only the stated lines that is line 25 through 50 of the log file. [3]
- (f) Give any two sets of questions you need to ask yourself as an administrator, before initiating a migration plan. [2]

- (g) Refer to Diagram A below. You discovered that your Windows 8 machine is showing you the following output after typing a specific command.



Diagram A

- (i) Which command was typed to show the above screen shot? [1]
-
- (ii) Based on the information shown explain the meaning of the number **1703**. [2]
-
- (iii) In December 2018 you run the same command to display the information shown in the screen shot above and you discovered that the same output appears. What will be the main risk for your windows 8 and how can you solve it? [3]

3. Long Questions

- (a) Analyse the following **Diagram B** and answer the questions which follows. This diagram is a screen shot from a Windows server 2012 DNS server.

The screenshot shows the 'contoso.com Properties' dialog box with the 'Start of Authority (SOA)' tab selected. The fields are as follows:

WINS	Zone Transfers	Security
General	Start of Authority (SOA)	Name Servers

Serial number: 18 [Increment]

Primary server: station254.contoso.com [Browse...]

Responsible person: hostmaster.contoso.com [Browse...]

Refresh interval: 15 minutes

Retry interval: 10 minutes

Expires after: 1 days

Minimum (default) TTL: 1 hours

TTL for this record: 0 :1 :0 :0 (DDDDD:HH.MM.SS)

Buttons: OK, Cancel, Apply, Help

Diagram B

- (i) Using information shown in **Diagram B** above, write down the email address which will be used in case the DNS service experience problems. [1]
- (ii) What needs to be done if you want your server to be the preferred master to be used when slave DNS servers update their zone files? [2]
- (iii) If a slave DNS server failed to contact the master DNS server, it will keep on responding to clients requesting for resources under the domain up to a certain maximum period before it stops if it cannot contact the master. What will be the maximum period? [1]

- (b) As an administrator, you can administer active directory running a server 2012 core edition using commands. What will be the result of entering the following command? [2]

```
dsmove "cn=sad622s,cn=users,dc=contoso,dc=com" -newparent  
"ou=students,dc=contoso,dc=com"
```

4. Unix Commands

- (a) Write down the commands to perform the following:

- i. add **/root/samba** to the system path.
- ii. set the permissions of **/root/samba** to `g=r - -, u=r w x` and `o= - w -`
- iii. change the expiry date of an existing user called **sad** to 25 June 2019.

[6]

5. Scripting

- (a) What is the result of the following arithmetic substitution:

```
 $\$(( 4 \times 4 + ( 7 - 3 / 4 ) ))$ 
```

[3]

- (b) What purpose does the following line: `#!/bin/sh` serve in a script? [1]

- (c) Write a shell script to prompt the user to enter a number and tell the user if the number is even or odd. [6]

End of Question Paper