



**NAMIBIA UNIVERSITY**  
OF SCIENCE AND TECHNOLOGY

**FACULTY OF COMPUTING AND INFORMATICS**

**DEPARTMENT OF COMPUTER SCIENCE**

<b>QUALIFICATION:</b> BACHELOR OF COMPUTER SCIENCE	
<b>QUALIFICATION CODE:</b> 07BACS, 07BCCS, 07BCCY, 07BCMS	<b>LEVEL:</b> 6
<b>COURSE:</b> SYSTEMS ADMINISTRATION	<b>COURSE CODE:</b> SAD622S
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<b>DURATION:</b> 2 HOURS	<b>MARKS:</b> 60 (100%)

FIRST OPPORTUNITY EXAMINATION QUESTION PAPER	
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**THIS QUESTION PAPER CONSISTS OF 7 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) You can use an ordinary account to join Windows client to Windows 2012 domain.
- (b) In Windows Server 2012 you can use the same name for the **NetBIOS name** and the **computer name** without any problem.
- (c) You can share a folder in Windows Server 2012 and make it appear in Windows client's file explorer as a mapped drive.
- (d) As an administrator you can configure a local Windows updates server. This server will pull updates from Microsoft and update your Windows clients.
- (e) The command "**more**" can be used in Linux and Windows.
- (f) The Windows command '**net user**' is used to check if an account is disabled or not.
- (g) Linus Torvalds is the creator and lead developer of the Linux and Windows kernel.
- (h) The **dsmove** command can work in Windows client and Server.
- (i) When configuring Windows Server 2012 as a domain controller you cannot change the default **NetBIOS** name suggested by the system.
- (j) When setting up your domain controller you cannot change the location of the Active Directory Domain Services database, log files, and SYSVOL.

## 2. Multiple Choice

- i) Which command was used to get the following screenshot?

```
Default Server: station254.example.com
Address: 10.100.54.254
```

- a) Ipconfig    b) ipconfig /displaydns    c) nslookup    d) ping
- ii) Which of the following Linux installation commands will not resolve package dependencies automatically? (Select two).
- a) yum    b) install-get    c) rpm    d) dpkg    e) apt
- iii) Your network contains an Active Directory domain named **example.com**. The domain contains a domain controller named DC1 that has the DNS Server server role installed. DC1 hosts a primary zone for **example.com**. The domain contains a member server named Server2 that is configured to use DC1 as its primary DNS server. From Server 2, you run **nslookup.exe** as shown below.

```
Administrator: C:\Windows\system32\cmd.exe - nslookup
Microsoft Windows [Version 6.3.9600]
(c) 2013 Microsoft Corporation. All rights reserved.

C:\Users\Administrator>nslookup
DNS request timed out.
    timeout was 2 seconds.
Default Server: UnKnown
Address: 192.168.0.254

>
```

You need to ensure that when you run **nslookup.exe**, the correct name of the default server is displayed. What should you do?

- a) From Advanced TCP/IP Settings on DC1, add **example.com** to the DNS suffix list
  - b) On Server2 add **8.8.8.8** as the primary server
  - c) On DC1, modify the Security settings of the **example.com** zone
  - d) On DC1, create a reverse lookup zone
- iv) Your network contains an Active Directory domain **example.com**. The domain contains 20 user accounts that reside in an organizational unit (OU) named **Staff**. You need to ensure that a user named **John** can link and unlink Group Policy objects (GPOs) to **Staff**. The solution must minimize the number of permissions assigned to **John**. What should you do?
- a) Add **John** to the Group Policy Creator Owners group
  - b) Modify the permission on the **\\example.com\SYSVOL\example.com\Policies** folder
  - c) Modify the permissions on the **John** account
  - d) Run the Delegation of Control Wizard on **Staff**
- v) Your network contains an Active Directory domain named **example.com**. All servers run Windows Server 2012 R2. The domain contains a member server named DC1. DC1 has the File Server server role installed. On DC1, you create a share named **SharedDocs**. The **SharedDocs** share will contain the files and folders of all users. You need to ensure that when the users connect to **SharedDocs**, they only see the files to which they have access. What should you do?
- a) Enable access-based enumeration
  - b) Modify the Share permissions



- c) Modify the **NTFS** permissions  
 d) No need to configure anything  
 e) Configure Dynamic Access Control
- vi) You have a print server named PDC1. You install a printer on PDC1. You share the printer as Printer1. You need to configure Printer1 to be available only from 14:00hrs to 17:00hrs every day. Which settings from the properties of Printer1 should you modify?
- a) Advanced   b) Device Settings   c) Security   d) General   e) Ports   f) Time
- vii) Your network contains an Active Directory domain named **example.com**. You create an account for a temporary employee named **saduser**. You need to ensure that **saduser** can log on to the domain only between 07:30hrs and 17:30hrs from a client computer named PC1. From which tab should you perform the configuration? Refer to the screenshot below.

The screenshot shows the 'saduser Properties' dialog box. The 'General' tab is active, displaying the user's name 'saduser' and several input fields: 'First name' (containing 'saduser'), 'Initials' (empty), 'Last name' (empty), 'Display name' (containing 'saduser'), 'Description' (empty), and 'Office' (empty). The 'Account' tab is visible in the background, showing the 'Account' section with fields for 'Name' (containing 'saduser') and 'Password' (empty).

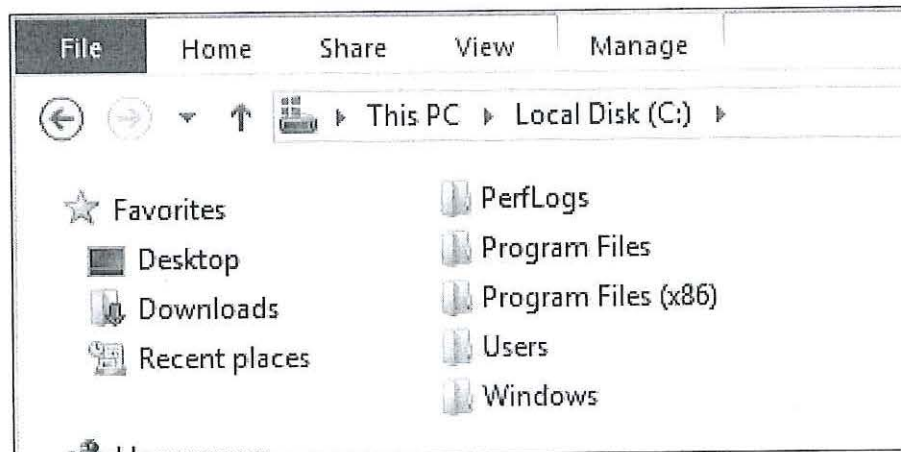
- a) Account   b) Environment   c) General   d) Profile   e) Address

### 3. Short Questions

(a) What do you understand by **task-based** delegation? [2]

(b) Give three tasks of a systems administrator [3]

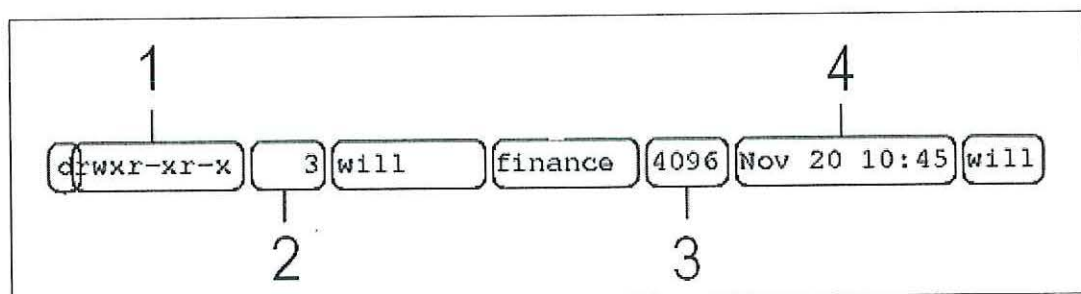
(c) Refer to the screenshot below from a Windows 8.1/10 and answer the questions which follow.



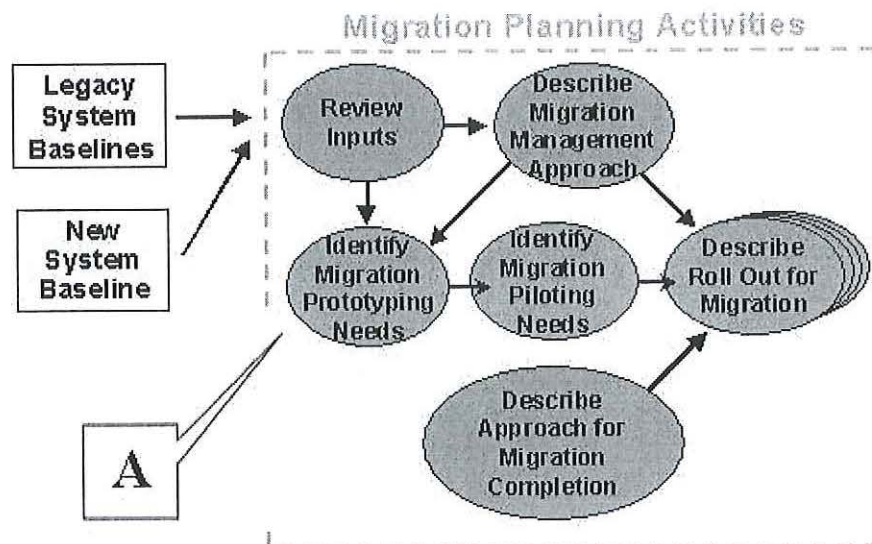
(i) You can run Windows 8.1/10 32bit or 64bit version. Which Windows version (32bit/64bit) is installed? Explain your answer. [2]

(ii) If you download and install vlc player 32bit version, which folder will keep the vlc player installation files? Explain. [2]

(d) In Linux, you can use the **ls** command to display objects (files and directories) in your current working directory. The **ls -l** command will list objects giving more detailed information. Below is one line extracted from **ls -l** output. Explain the parts numbered with **1, 3** and **4**. [6]



- (e) With reference to the activities labeled A in the migration activities in the diagram below, what is prototyping and why is it used? [4]



- 4 Analyse diagram below and answer the questions which follow. The diagram is a screen shot from a Windows 2012 DNS Server.

Name	Type	Data
_msdcs		
_sites		
_tcp		
_udp		
DomainDnsZones		
ForestDnsZones		
(same as parent folder)	Start of Authority (SOA)	[25] station254.cs.net., hostmaster.cs.net.
(same as parent folder)	Name Server (NS)	station254.cs.net.
(same as parent folder)	Host (A)	192.168.10.254
station254	Host (A)	192.168.10.254
Win8-Client01	Host (A)	192.168.10.11
station240	Host (A)	192.168.10.240
webserver	Host (A)	192.168.10.200
webserver	Host (A)	192.168.10.201
webserver	Host (A)	192.168.10.202
web	Alias (CNAME)	station240.cs.net
(same as parent folder)	Mail Exchanger (MX)	[5] station240.cs.net
(same as parent folder)	Mail Exchanger (MX)	[10] station254.cs.net

- (i) What is the current **serial number** on this server? Explain the purpose of the **serial number**. [2]
- (ii) From the diagram above we can see that there are 3 IP addresses associated with the host **webserver**. Assuming that the company's website is hosted on **webserver**. State the advantage of having one name associated with 3 IP addresses. [1]
- (iii) You have been hired as an email server specialist. The client indicated that emails are going to one server only.
- (a) How many email server records are shown from the diagram? [2]
- (b) Which server is the preferred email server and why? [2]
- (c) Following your response in (b) above how do you make sure that emails will prefer the other server as the preferred one? [2]



5. Analyse the screen shot from a Windows 2012 domain controller and answer the questions which follow.

```
C:\Documents and Settings\Administrator>dsquery user
"CN=Administrator,CN=Users,DC=ced,DC=ac,DC=na"
"CN=Guest,CN=Users,DC=ced,DC=ac,DC=na"
"CN=SUPPORT_388945a0,CN=Users,DC=ced,DC=ac,DC=na"
"CN=krbtgt,CN=Users,DC=ced,DC=ac,DC=na"

C:\Documents and Settings\Administrator>
```

- (a) You have been hired as a specialist in Windows Server 2012 domain controller. How many users are registered on the system? [2]
- (b) Using the **net user** command, you are required to create a user called **sad24** as a domain user with a password **Pa55word**. You can get the domain name from the diagram above. [3]
- (c) Analyse the following command and explain why it will give an error if entered on a domain controller with the screenshot above. Suggest a solution. [3]

```
dsadd user "cn=tm,dc=ced,dc=ca,dc=na" -fn "Fulltime" -ln "Parttime"
```

## 6. Unix Commands

You are employed by a **Gold Company** as the new Systems Administrator. One day you decide to check the commands which were issued before on the server and you find four consecutive commands shown below:

```
cd /tmp
mkdir sad622s
cal 6 2024
date
```

What was the previous Administrator trying to archive with each of the above commands? [6]

**\*\* End of question paper \*\***

**Good Lucky**