



TNE10005/TNE60002
Network Administration
Practice Skills Exam

2

This exam is worth 20% of the overall marks for this unit

Date: Week 11 Lab

Time:

Room: ATC626

Student Name: _____

Student ID:

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|--|--|--|--|--|--|--|

Signature: _____

Structure of the Exam

Reading Time – 15 minutes *[You cannot configure your PCs during reading time, you may write]*
This time is for reading and designing your solution

Part A – Subnetting and address

Part B – Core Component - every student will be required to complete this task.

Part C.1&2 – The assessor will ask the student to demonstrate how they addressed Part C

Configuring Time – 25 minutes to configure all parts
[Monitors must be turned off at the end of configuring time]

All students are to use 20410c Lon-DC1 and sWinPC1
(Activities are to be performed on 20410c Lon-DC1, unless otherwise stated)

This is a closed book exam – students may have one page of notes in their own handwriting

INSTRUCTIONS:

- Fill in your personal details above.
- Log on to Lon-DC1 as Administrator.
- Log on to sWinPC1 as Administrator.
- Switch your monitor off.

When everyone in the skills exam session is ready, the supervisor will announce when reading time commences.

You are allowed to write once reading time commences.

You are not allowed to have your monitor on during reading time.

You may use one A4 sheet of paper with handwritten notes for Part C.

DO NOT TURN THE PAGE UNTIL INSTRUCTED

Marks Total: _____ / 20

Part A
Scenario

5 Marks

Adatum.com an international IT solutions company, is launching **12** new branches in a new country where they currently have no existing branches. The sWin CIO has asked that each subnet should host at least **1000** devices.

sWin has obtained a network address of **192.168.0.0/18**.

This address needs to be subnetted further. The internal subnet mask will be **/22**

The company's subnet plan allows for:

- Router Pool: 2 router interfaces for each subnet – the first **2** IP addresses from each subnet.
- Managed Network Device Pool: The first **20** IP addresses that follow the Router Pool are reserved for switches and other network devices
- Server Pool: The first **20** IP addresses following the Managed Network Device Pool are reserved for servers.
- Workstation Static Pool: The first **10** IP addresses following the Server Pool are reserved for Workstations that require static IP addresses.
- Workstation DHCP Pool: The remaining IP addresses are reserved for automatic IP configuration

You have been asked to use subnet **9** for your device addressing.

Configure the **first** IP address from the Server Pool to Lon-DC1.

Configure the **first** IP address from the Workstation Static Pool to sWinPC1.

Configure the **first** IP address from the Router Pool to be the default gateway.

----- Working space -----

| Part A | |
|-----------|-------|
| Section | Score |
| N | |
| Z | |
| R | |
| S | |
| W | |
| Sub-total | |
| 5 | |
| Assessor: | |

Part B

10 Marks

Adatum Pty Ltd is an established company that is growing quickly. A year ago they expanded to 5 new countries, each with its own domain. Next year they will open up in two more countries. The IT Department has a team in each country. They all need to access the IT_Procedures folder in the Australian office. The IT managers maintain these procedures, updating them as required for the IT technicians to access as needed. Next year each IT team will need to be given access to resources spread across the different domains.

How can you configure the Adatum.com domain in Australia, in preparation for the new domains, to achieve the desired result with the least amount of administrative effort?

[Note: you only need to configure for one domain]

Task

Using best practice:

- Design your solution below.
- Join sWinPC1 to the domain
- Configure your domain with the appropriate groups and resources so that it meets the needs inferred above.
- Create two sample users so that you can test your configuration.

Design

- Include groups, names, nesting, folders and permissions
- The design can be filled in during reading time
- The majority of marks are awarded for implementation, not design.

| Part B | |
|----------------|-------|
| Section | Score |
| U | |
| F | |
| D | |
| P | |
| G | |
| N | |
| C | |
| J | |
| Sub-total 9 | |
| Assessor: | |

Part C

2 questions. 3 marks each. Some questions must be paired. The skills exam will only have two questions printed.

| | | |
|----|---|---------|
| 1 | Install IIS, verify that you can view the default web page from the client. | |
| 2 | Ensure that the World Wide Web publishing service will restart if it has three failures in a week. | |
| 3 | Create an OU called Research. Delegate control of this OU to a user account created in part B so that they can create, delete and manage user accounts and groups. | |
| 4 | Create a user account template for one of the global groups created in Part B. Ensure that every new user will have their own home folder | |
| 5 | Using Powershell create a new OU for one of the teams in Part B. Use Powershell to create a new user account. Ensure that the new user account is created in the new OU | PG Only |
| 6 | Using Powershell create a new Global Group called G_IT_Tutors in the IT OU. Use Powershell to add a user account from PartB to the group. | PG Only |
| 7 | Install the DHCP role on Lon-Svr1. Create a scope with the pool of addresses 172.16.0.100-172.16.0.149 | |
| 8 | Configure a DHCP option so that all devices in the scope obtain your Lon-DC1 address as the DNS server address. Create a reservation for Lon-C11. | PG Only |
| 9 | Configure a DHCP Relay agent on Lon-Rtr | PG Only |
| 10 | Configure Lon-Svr1 to be a DNS Server. Create a Primary zone called Swin.com and create a host record with an IP address from your DHCP pool in Part A. | |
| 11 | On Lon-DC1 create a secondary zone called Swin.com. Configure DNS so the records will replicate to the secondary zone. | PG Only |
| 12 | Configure an IPv6 router on Lon-DC1s Ethernet interface. Configure this interface to advertise the route 2001::db8:0:1::/64. Verify that Lon-C11 has picked up an IP address from this IPv6 subnet. | PG Only |
| 13 | On Lon-Svr1, convert any 2 disks to a Dynamic disk. Create a spanned volume of 200 MB. Mount this new volume as C:\Skills | UG |
| 14 | On Lon-Svr1, convert any 3 disks to a Dynamic disk. Create a RAID 5 volume of 200 MB. Mount this new volume as C:\Skills | PG Only |
| 15 | Enable access-based enumeration on the folder you created in Part B. Configure shadow copies on Drive E so that they occur at 9:30 AM and 2:30 PM Monday - Friday | |

| | | |
|----|--|---------|
| 16 | Install and share a Brother printer on LPT1. Configure it so that <u>only</u> one group from Part B can print to it. | PG Only |
| 17 | Allow members of the IT group to log on locally to the domain controller. | |
| 18 | Audit all access to files in the folder you created in Part B. | |
| 19 | Ensure that users must change their passwords every 30 days and have passwords of 10 characters | |
| 20 | Ensure that users are locked out for 90 minutes if they enter the wrong password 4 times | |
| 21 | Audit all attempts to log on to the domain. Demonstrate that the policy works. | |
| 22 | Configure Applocker so that users in the domain cannot run wordpad.exe | PG Only |
| 23 | Create a counter log that will help you monitor the primary subsystems for a week. | |
| 24 | Create an alert that will warn if the hard disk E: is running out of space. | |
| 25 | Backup the C:\Users folder on the DC to a new volume on sWinPC1. | |
| 26 | Configure a GPO that will remove access to the task manager when CTRL+ALT+DEL is pressed. Configure the GPO so it will only apply to one of your groups created in Part B. | |
| 27 | Prevent new accounts from remaining in the administrator group. | |
| 28 | Model your group policy for a user from Part A and Lon-C11 to verify that your GPO is working. | |
| 29 | Enable quotas and define a default hard quota of 50 MB. Configure a hard quota that limits an individual user to 100 MB. | |
| 30 | Configure a GPO that will allow port 8080 through the windows firewall. | PG Only |

| Part 3 | |
|------------------|-------|
| Task Allocated | Marks |
| | /3 |
| | /3 |
| Assessor: | |