

Lab Exam / Skills-Based Assessment

Name: \_\_\_\_\_

Time available: 2 hrs, 30 mins 25% of final grade

Pod #: \_\_\_\_\_ Time slot: \_\_\_\_\_

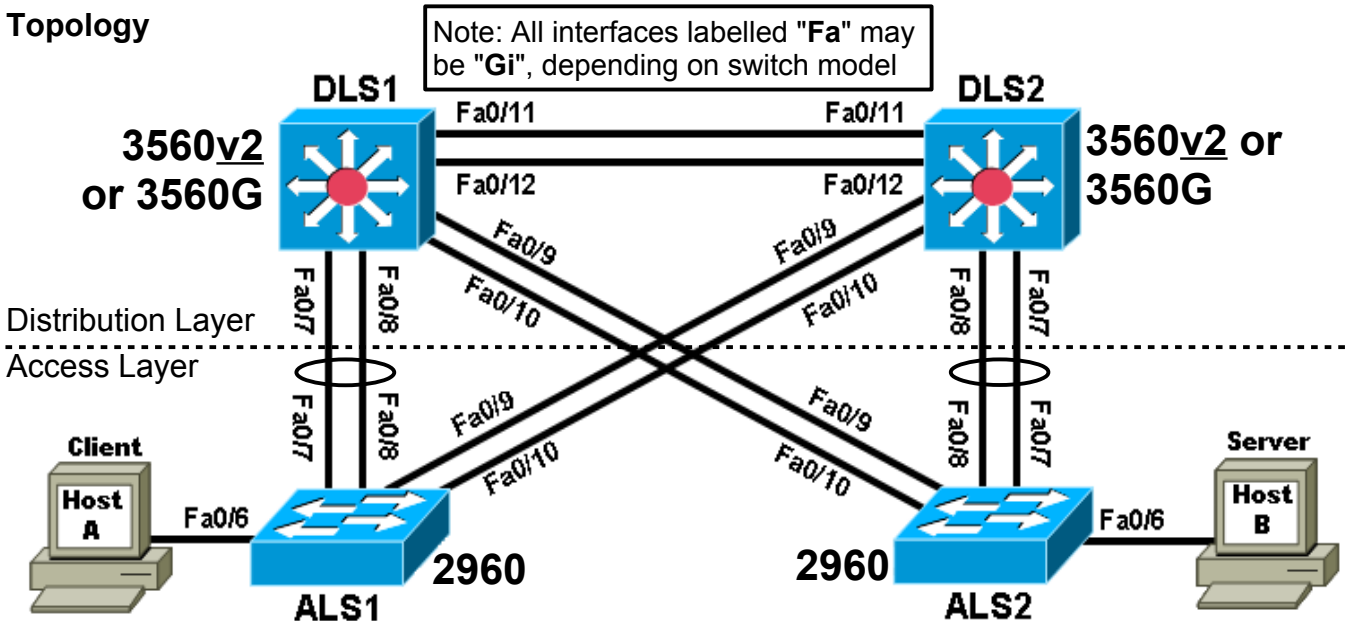
Marks available: @@ marks

This exam paper must be returned or you will get a score of 0.

**Permitted Resources**

- 4 switches which need to be cabled according the topology shown below.
- Two workstations (Host A, Host B), which need to be cabled as below.
- A hard-bound, hand written lab book.  
This book must be entirely hand-written; no photocopies or typed information is allowed.
- Required cables will be supplied as needed.
- Pencil and/or pen (blank paper will be supplied).

**Topology**



**Objectives**

- Part 1: **Configure** the switches in the topology according to the diagram and specifications provided. This is a test of your skill (ie. speed and accuracy) at configuring Cisco equipment.
- Part 2: **Verify**, and troubleshoot as necessary, the network for appropriate connectivity and all options configured in Part 1. **DEMO** [omitted] which verify [omitted].

**Exam Overview**

In Part 1, you configure various features such as [omitted], [omitted], [omitted], [omitted], [omitted], [omitted], [omitted], [omitted] and [omitted]. In Part 2, you create [omitted] to test [omitted] and use **show** commands to verify configured options. This exam combines device configuration and troubleshooting.

The pre-requisite for earning any marks is submitting your configs: you **must** submit **complete** configs for **all four switches**. These must be zipped into a single file and uploaded to a local FTP server (using command-line FTP, Windows Explorer, or other utility). **See filename details at end.**

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(You may use it for extra notes, if desired.)

**Part 1: Configure the network according to specifications below.**

0. Set the host name on **EACH** device as the shown on the topology diagram and **pre-pend** your Algonquin Net ID. A penalty of **-1 mark** will apply for **each** device missing this host name! [-4]
1. [The remainder of this section contains a set of configuration tasks which must be configured on one or more of the switches. No specific commands are provided, only configuration requirements. You must understand and correctly implement the requirements in order to earn marks.]

**Part 2: Test network connectivity and configured options.**

[This section contains a number of verification steps, which exist purely to help you confirm that you have done your work correctly. They do not have any marks assigned.

There are also several DEMO items, each worth a single mark.]

Note: **NO DEMOS** are permitted in the final 15 mins of the lab exam.

1. Verify that [omitted].
2. Verify that [omitted] is configured correctly.
3. Verify the [omitted] configuration & [omitted] is correct for [omitted].
4. Verify that all required [omitted].
5. [omitted] verify connectivity from [omitted]\_to [omitted].  
**DEMO:** \_\_\_\_\_ (initial by Prof)
6. Verify that [omitted] **DEMO:** \_\_\_\_\_ (initial by Prof)

**Submit the configs and VLAN data for each switch:**

**Note:** 1 mark will be deducted for each incorrectly named file!

**Late Penalty:** 10% per minute, according to the timestamp on the FTP server.

1. Capture the config for each switch using `show run`. Create a separate file for each switch. The files **must be named:** `{AlgNetID}-ALS1.cfg`, `{AlgNetID}-ALS2.cfg`, and so on.
2. Capture **all other switch config** using additional "show" commands. Create a separate file for each switch (eg. using notepad). The files **must be named:** `{AlgNetID}-ALS1.txt`, `{AlgNetID}-ALS2.txt`, and so on.
3. Collect all 8 files into a single zip file which **must be named:** `{lastname}-{firstname}.zip`
4. Use command-line FTP, Windows Explorer, or any other FTP utility to connect to the Prof's FTP server. The actual IP address of the server will be written on the whiteboard.
5. **Submit your zip file to the FTP server.** Verify that your zip file has been correctly transferred (ie. double check the size & name of your submission on the FTP server)

**Ensure all your switches are completely cleared of any config (incl. VLAN)**

**Penalty:** 10% per device, for any config or VLAN data left on any switch!

**HAND IN this exam paper (whether or not you have any initials for demos).**