These are some suggestions for the competitors should know for competition. This was sent to me by the judge for that competition.

1. **Basic Computer Networking**: Understand the fundamentals of computer networking, including how to connect a computer to a wired or wireless network.

1. **Console Connection to a Cisco Switch**: Be familiar with the process of establishing a console connection to a Cisco switch, including the use of console cables and terminal software (like PuTTY or Tera Term).

1. **Basic Cisco IOS Command-Line Interface (CLI) Navigation**:
   1. Have a basic understanding of the Cisco IOS CLI, including how to navigate through different modes (user EXEC mode, privileged EXEC mode, global configuration mode).
   2. Be familiar with use of "Tab complete" and "?", understanding these features still require a certain level of proficiency with the CLI.

1. **Understanding and Applying Basic Security Configurations**:
   1. Know how to apply basic security configurations on a Cisco switch, such as setting passwords and disabling unnecessary services.
   2. Understand the difference between the strength of a local password hashed with the 'password' command versus the 'secret' command.
   3. Understand the difference between a local user password, and an 'enable' password.
   4. Understand user privilege levels and how to assign them to a system user.

1. **Implementing and Securing VLANs on Cisco IOS:**
   1. General knowledge of VLAN technology and configuration syntax in Cisco IOS.
   2. Differentiate between a Cisco "trunk" and "access" interface
   3. Understand the concept of "VLAN pruning" on trunk interfaces
   4. Understand the function of a "VLAN interface" and how to assign an IP address and enable the interface for switch management.

1. **Access Control Lists (ACLs) Basics and Implementing on Cisco IOS**:
   1. Have a fundamental understanding of what an ACL is and its purpose in controlling network traffic based on specific criteria like IP addresses and port numbers.
   2. Understand what an "Implicit Deny" is.
   3. Be familiar with how to create a standard ACL in the Cisco CLI and how to apply it to a switch interface. Pay special attention to how ACLs function by filtering traffic both inbound and outbound on an interface.

1. **Conducting Connectivity Tests**:
   1. Know how to conduct ping tests to check network connectivity and troubleshoot connectivity issues.
   2. Know how to remotely interact with a server using SSH

**Competitors will also need the following**

* Laptop
* Putty  Software installed
* Nmap (AKA Zenmap for Windows installed)
* Be familiar with station 4 scenario from the Regs.