



SkillsUSA 2011-12 District 10 Competition—Scope

Clarion County Career Center
447 Career Lane, Shippenville, PA 16214
January 16, 2012

Competition Title: *INTERNETWORKING*

Clothing/Safety Requirements:

SkillsUSA shirt or white button shirt
Dark trousers
Dark socks, shoes, belt
No school names
I.D. number will be provided
All clothes must be free of insignias/labels

Eligibility:

Registered Skills USA member enrolled in a Computer Networking program.
Students are required to have proof of training form and a one page resume.

Tools/Materials Supplied by Contestant:

None

Tools/Materials Supplied by the Clarion County Career Center:

Routers, Switches, and Computers

Scope of Contest:

Students will be tested as follows:
Each event will be timed. The maximum amount of time for each task is indicated.

Students will be evaluated using the following criteria:

1. Safety.
2. Job performance. (Amount of work done and the quality)
3. Personal appearance. (Clothes, shoes)
4. Verbal terminology. (Trade terminology)
5. Neatness and Accuracy.

Written test will be limited to: 1 hour

Test will cover topics related to the Cisco Certified Entry Level Network Technician. Those topics can include:

- Describe the operation of data networks
- Implement a small switched network
- Implement an IP addressing scheme and IP services to meet network requirements for a small branch office
- Implement a small routed network
- Explain and select the appropriate administrative tasks required for a WLAN
- Identify security threats to a network and describe general methods to mitigate
- Implement and verify WAN links

Performance test will be limited to: 1.5 hours

Create a small network that consists of 2 computers, 2 switches and 2 routers. Students will have to select the appropriate cables to connect the computers, switches and routers together. Students will need to be able to configure the following:

- Static IP Addresses, Subnet Mask and Default Gateway on Computers – Students will be provided appropriate Class C addresses to configure on the network. (Work 6.6 – Identify methods for a node to obtain an IP Address (Static and Dynamic Methods))
- Configure through command line hostname, enable passwords, console passwords and Virtual Terminal Passwords to provide terminal login to the Cisco 1841 Routers. (Work – 12.0 Configure a Router by utilizing the CLI)
- Configure through command line interface an IP Addresses on the Cisco 1841 Routers Serial Port and Fast Ethernet Ports (Work – 12.0 Configure a Router by utilizing the CLI)
- Configure through command line the Default route on appropriate Cisco 1841 Routers (Work 15.3 – Configure default route forwarding)
- Configure through command line Static Routes to allow network connectivity between the created network. (Work 15.2 – Configure static routes)
- Backup their routers configuration files to a TFTP server or through the use of a text file using command line interface (Work 14.7 – Use TFTP to manage and copy)

- Restore their routers configuration file to the router once it has been removed using command line interface. (Work 14.7 – Use TFTP to manage and copy)

See Scoring Rubric.

Contact information:

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