(300) Computer Network Technology

Description & Eligibility
Demonstrate knowledge in fundamental networking concepts including network architecture, standards, topologies, protocols, and security. Any postsecondary or secondary division contestant may enter this objective event.

Contestant Must Supply
- Published and/or unpublished non-electronic written reference materials.
- Cordless calculator: Electronic devices will be monitored according to ACT standards. See NLC Calculator Guidelines. Contestants who violate this rule will be *disqualified*.

Equipment/Supplies Provided
- Computer and software

Competition Notes
- Method of evaluation: objective.
- Previous Business Professionals of America tests and/or sample tests (handwritten, photocopied or keyed) may not be taken into the testing area. **Violation of this rule will result in disqualification.**
- At NLC, contestants will take IT Specialist Networking certification as part of the event. Contestants passing this certification will have 50 points added to their event score. A Certiport profile must be created at www.certiport.com before attending NLC. Contestants must include their BPA contestant ID in their Certiport profile when they register. For more information on the exam, visit www.certiport.com. Reference materials are not allowed for certification testing.
- The top 10 contestants at Nationals will advance to a final round that includes a hands-on component. Scores from the preliminary round and the objective test will not carry over to the finals. Reference materials may be used during the application portion of the final round.
- Length of event
  - **Preliminaries** - No more than sixty (60) minutes for objective test, no more than one hundred twenty (120) minutes for certification test
  - **Finals** - No more than sixty (60) minutes for hands-on tasks
- Entries vary by state.

Contest Competencies
- Demonstrate knowledge of OSI and TCP/IP subnetting and routing
- Demonstrate knowledge of IPv4, IPv6
- Demonstrate knowledge of network adapters, network cabling, switches and routers, proxies, and firewalls
- Demonstrate knowledge of network connectivity, troubleshooting, protocols, and administrative utilities
- Demonstrate knowledge of DNS
- Demonstrate knowledge of Cloud and Virtualization
- Demonstrate knowledge of WINS, DHCP
- Demonstrate knowledge of remote access protocols
- Demonstrate knowledge of network operating systems and clients
- Demonstrate knowledge of directory services
- Demonstrate knowledge of home wireless technologies

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