

Introduction to Information Technology

Introduction to Information Technology provides members with the opportunity to demonstrate knowledge around introductory competencies information technology. This competitive event consists of an objective test. It aims to inspire members to learn about the various aspects of technology to manage and deliver information.

Event Overview

Division: High School (9th & 10th graders only)

Event Type: Individual

Event Category: Objective Test, 100-multiple choice questions (breakdown of question by

competencies below)

Objective Test Time: 50 minutes

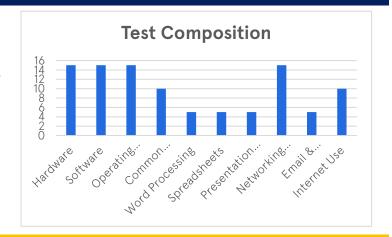
NACE Connections: Career & Self-Development

Equipment Competitor Must Provide: Pencil

Equipment FBLA Provides: One piece of scratch paper per competitor

Objective Test Competencies

- Computer Hardware
- Computer Software
- Operating Systems
- Common Program Functions
- Word Processing
- Spreadsheets
- Presentation Software
- Networking Concepts
- E-mail and Electronic Communication
- Internet Use



District/Region/Section

Check with your District/Region/Section leadership for District/Region/Section-specific competition information.

State

Check with your State Leader for state-specific competition information.

National

Policy and Procedures Manual

• Competitors should be familiar with the Competitive Events Policy & Procedures Manual, found on the Competitive Events page on www.fbla.org.

Eligibility

• FBLA membership dues are paid by 11:59 pm Eastern Time on March 1 of the current program year.



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- Members may compete in an event at the National Leadership Conference (NLC) more than once if they have not previously placed in the top 10 of that event at the NLC. If a member places in the top 10 of an event at the NLC, they are no longer eligible to compete in that event.
- Members must be registered for the NLC and pay the national conference registration fee in order to participate in competitive events.
- Members must stay in an official FBLA hotel to be eligible to compete.
- Each state may submit four entries per event.
- Each member can only compete in one individual/team event and one chapter event (American Enterprise Project, Community Service Project, Local Chapter Annual Business Report, Partnership with Business Project).
- Picture identification (physical or digital driver's license, passport, state-issued identification, or school-issued identification) is required when checking in for competitive events.
- If competitors are late for an objective test, they will be allowed to compete until such time that results are finalized, or the accommodation would impact the fairness and integrity of the event. Competitive event schedules cannot be changed. Competitive events start in the morning before the Opening Session of the NLC.

Recognition

• The number of competitors will determine the number of winners. The maximum number of winners for each competitive event is 10.

Fvent Administration

- This event is an objective test administered online at the NLC.
- No reference or study materials may be brought to the testing site.
- No calculators may be brought into the testing site; online calculators will be provided through the testing software.

Tie Breaker

• Ties are broken by comparing the correct number of answers to 10 pre-determined questions on the test. If a tie remains, answers to 20 pre-determined questions on the test will be reviewed to determine the winner. If a tie remains, the competitor who completed the test in a shorter amount of time will place higher.

Americans with Disabilities Act (ADA)

• FBLA meets the criteria specified in the Americans with Disabilities Act for all competitors with accommodations submitted through the conference registration system by the registration deadline.

Penalty Points

• Competitors may be disqualified if they violate the Competitive Event Guidelines or the Honor Code.



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• Five points are deducted if competitors do not follow the Dress Code or are late to the testing site.

Electronic Devices

• All electronic devices such as cell phones and smart watches must be turned off before competition begins.

Study Guide: Competencies and Tasks

- A. Computer Hardware
 - 1. Identify different types of computers.
 - 2. Identify the function of various computer hardware components.
 - 3. Identify factors that go into an individual or organizational decision on how to purchase computer equipment.
 - 4. Identify how to maintain computer equipment and solve common problems relating to computer hardware.
 - 5. Identify how different computers process information and how individual computers interact with other computing systems and devices.
 - 6. Describe the characteristics and functions of CPUs, motherboards, random access memory (RAM), expansion connections hard drives, and CD-ROM drives.
 - 7. Explain the functions and characteristics of system expansion devices (e.g., graphics cards, sound cards, modems).
 - 8. Investigate basic issues affecting system purchases and upgrade decisions.
 - 9. Compare categories of computers based on their size, power, and purpose.
 - 10. Identify the various types of computer storage devices and compare the advantages and disadvantages of various storage devices.
 - 11. Install and configure hardware and basic hardware applications in a computer system.
 - 12. Clean and perform routine maintenance on computer systems.
 - 13. Evaluate the performance of core computer systems components.
 - 14. Demonstrate the use of connectivity devices and peripheral equipment (e.g., portable storage, devices, printers, cable modem, and wireless technologies).
- B. Computer Software
 - 1. Identify different types of general software concepts relating to software categories, and the tasks to which each type of software is most suited or not suited.
 - 2. Identify how software is developed and upgraded.
 - 3. Complete workplace applications that integrate word processing, spreadsheet, database, and multimedia software.
 - 4. Produce documents integrating and manipulating graphic files and multimedia with other application software.
 - 5. Identify how software and hardware work together to perform computing tasks.
 - 6. Compare and contrast the appropriate use of specialized software applications.
 - 7. Use system utilities and explain system utility software and cite examples.
- C. Operating Systems
 - 1. Identify what an operating system is and how it works.
 - 2. Manipulate and control Windows desktop, files, and disks.
 - 3. Identify how to change system settings.



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- 4. Solve common problems related to operating systems (e.g., blue screen, system lock-up, and input/output device, application install, start, or load, Windows-specific printing problems).
- 5. Install and remove software.
- 6. Explain operating system software and site examples of different operating systems including DOS, Windows, and Macintosh.
- 7. Identify how the four components of a network operating system (server platform, network services software, network redirection software, and communications software) support network operations.
- 8. Identify names, purposes, and characteristics of the primary operating system components including registry, virtual memory, and file system.
- 9. Use command-line functions and utilities to manage operating systems, including proper syntax.
- 10. Compare different options of baking up, securing data, and restoring a system.
- 11. Identify the basic parts of a computer system and describe the functions and relationships among components.
- 12. Recognize file sizes in terms of kilobytes, megabytes, and gigabytes.
- D. Common Program Functions
 - 1. Be able to start and exit a Windows application.
 - 2. Explain the purpose and functions of computer programming.
 - 3. Identify common on-screen elements of Windows applications, change application settings, and manage files within an application.
 - 4. Perform common editing and formatting functions.
 - 5. Perform common printing and outputting functions.
 - 6. Demonstrate how to utilize sources of online help.
 - 7. Perform basic computer filing tasks (e.g., naming, saving, deleting, moving files).
- E. Word Processing
 - 1. Be able to format text and documents, including the ability to use automatic formatting tools.
 - 2. Be able to insert, edit, and format tables in a document.
 - 3. Explain the purpose, function, and common features of commonly used word processing programs.
 - 4. Design, create, retrieve, proofread, edit, and save workplace documents using word processing software.
- F. Spreadsheets
 - 1. Be able to modify worksheet data.
 - 2. Structure and format data in a worksheet.
 - 3. Be able to sort and manipulate data using formulas and functions.
 - 4. Be able to add and modify charts in a worksheet.
 - 5. Explain the purpose, function, and features of commonly used spreadsheets.
 - 6. Define spreadsheet terminology (e.g., cell, row, column, range, label, value, formula, function, worksheet, relative, absolute, legend).
 - 7. Design, create, and use spreadsheets for workplace applications.
- G. Presentation Software
 - 1. Be able to create and format simple presentations.
 - 2. Identify common features of presentation software.
- H. Networking Concepts
 - 1. Identify network fundamentals and the benefits and risks of network computing.



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- 2. Identify the relationship between computer networks, other communication networks, and the Internet.
- 3. Identify types of networks (e.g., LAN, WAN, MAN) and their features and applications.
- 4. Explain principles of basic network security (e.g., IP spoofing, packet sniffing, password compromise, encryption).
- 5. Identify names, purposes, and characteristics (e.g., definition, speed, connections) of technologies for establishing connectivity.
- 6. Understand the functions of various network devices, including network connectivity hardware.
- 7. Identify the types of wireless network media and the uses, advantages, and disadvantages of each.
- 8. Install, configure, optimize, and upgrade networks.
- 9. Identify tools, diagnostic procedures, and troubleshooting techniques for networks.
- 10. Understand the differences between various network environments (e.g., peer-to-peer, client-server, thin client, n-tier, internetworks, intranets, and extranets).
- 11. Identify the purposes and interrelationships among the major components of networks (e.g., servers, clients, transmission media, network operating system, network boards).
- 12. Identify how computers share data, files, hardware, and software.
- 13. Understand the role of clients and servers in a network.
- 14. Demonstrate knowledge of the open system interconnection (OSI) standard.
- 15. Differentiate between various current protocols (e.g., TCP/IP, IPX/SPX, NETBEUI, and DHCP).
- 16. Explain network topologies (e.g., star, bus, ring, broadband, baseband).
- I. E-mail and Electronic Communication
 - 1. Identify how e-mail works.
 - 2. Identify how to use an e-mail application.
 - 3. Identify the appropriate use of e-mail and e-mail related "netiquette."
 - 4. Use e-mail to send and receive messages and attachments.
 - 5. Identify different types of electronic communication and electronic collaboration and how they work.
 - 6. Identify common problems associated with electronic communication (e.g., delivery failure, junk mail, fraud, viruses).
 - 7. Explain major current issues and trends in data communications.
- J. Internet Use
 - 1. Identify different types of information sources on the Internet.
 - 2. Demonstrate proficiency in using the basic features of GUI browsers (e.g., setting bookmarks, basic configurations, e-mail configurations, address book).
 - 3. Define Universal Resource Locators (URLs) and associated protocols (e.g., com, org, edu, gov, net, mil).
 - 4. Demonstrate proficiency using various web tools (e.g., downloading of files, transfer of files, telnet, PDF).
 - 5. Identify effective Boolean search strategies.
 - 6. Demonstrate the ability to navigate the Internet using a variety of search engines to conduct research.
 - 7. Understand how content is created, located, and evaluated on the World Wide Web.