

### **Introduction to Information Technology**

Introduction to Information Technology challenges members to demonstrate their understanding of fundamental IT concepts through an objective test. This event introduces members to key areas such as computer systems, software, networks, and data management, highlighting how technology is used to organize and deliver information in business settings.

#### **Event Overview**

Division	High School (9 <sup>th</sup> & 10 <sup>th</sup> graders only)
Event Type	Individual
<b>Event Category</b>	Objective Test
Event Elements	50-minute test, 100-multiple choice questions

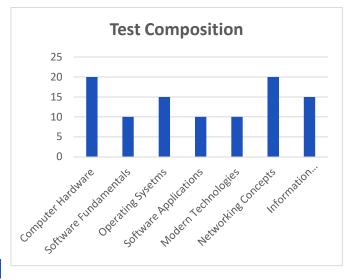
#### **Educational Alignments**

Career Cluster Framework Connection	Digital Technology
NACE Competency Alignment	Career & Self-Development, Communication,
	Critical Thinking, Technology

#### **Knowledge Areas**

- Computer Hardware
- Software Fundamentals
- Operating Systems
- Software Applications
- Modern Technologies
- Networking Concepts
- Information Management Concepts

Test questions are based on the knowledge areas and objectives outlined for this event. Detailed objectives can be found in the study guide included in these guidelines.



#### Region

Each chapter may enter two students in this event. Testing is school-site and proctored with careful monitoring to ensure the integrity of the test.

#### State

Top three (3) qualifiers of each region are eligible to compete at the State Leadership Conference.





#### **National**

#### **Required Competition Items**

#### **Items Competitor Must Provide**

- Sharpened pencil
- Fully powered device for online testing
- Conference-provided nametag
- Photo identification
- Attire that meets the FBLA Dress Code

#### **Items FBLA Provides On-site**

- One piece of scratch paper per competitor
- Internet access
- Test login information (link & password provided at test check-in)

#### **Important FBLA Documents**

• Competitors should be familiar with the Competitive Events <u>Policy & Procedures Manual</u>, <u>Honor Code</u>, <u>Code</u> of Conduct, and <u>Dress Code</u>.

#### **Eligibility Requirements**

To participate in FBLA competitive events at the National Leadership Conference (NLC), the following criteria must be met:

- **Membership Deadline**: FBLA national membership dues must be paid to the specific division by 11:59 p.m. Eastern Time on March 1 of the current school year.
- Repeat Competitors: Members may only compete in an event at the 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 at future NLCs,
  unless the event has been modified beyond a name change. Chapter events are exempt from
  this procedure.
- **Conference Registration**: Members must be officially registered for the NLC and must pay the national conference registration fee to participate.
- Official Hotel Requirement: To be eligible to compete, competitors must stay within the official FBLA housing block.
- State Entry Limits: Each state may submit up to four entries per event.
- **Event Participation Limits**: Each member may participate in:
  - o One individual or team event, and
  - One chapter event (e.g., Community Service Project or Local Chapter Annual Business Report).
- **Participation Requirement**: To be eligible for an award, each competitor must complete all components of the event at the National Leadership Conference.
- Identification at Check-in: Competitors must present valid photo identification (physical or digital) that matches the name on their conference name badge. Acceptable forms include a driver's license, passport, state-issued ID, or school ID.
- Late Arrivals: Competitors will be allowed to compete until such time that the results are finalized, or participation would impact the fairness and integrity of the event, as determined by Competitive Events staff. Five penalty points will be assessed for late arrivals in any competitive event.
- Event Schedule Notes:
  - o Some events may begin before the Opening Session.



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- o All schedules are posted in local time for the NLC host city.
- Schedule changes are not permitted.

#### **Event Administration**

- Test Duration: 50 minutes
- **Format:** This event consists of an objective test administered online during the National Leadership Conference (NLC).
- Materials: Reference or study materials are not permitted at the testing site.
- **Calculators:** Personal calculators are not allowed; an online calculator will be available within the testing platform.
- **Question Review:** Competitors may flag questions within the testing platform for review prior to the finalization of results at the NLC.

#### Scoring

- Each correct answer is worth one point.
- No points are deducted for incorrect answers.
- Tiebreakers are determined as follows: (1) The number of correct responses to 10 pre-selected tiebreaker questions will be compared. (2) If a tie remains, the number of correct responses to 20 pre-selected questions will be reviewed. (3) If a tie still remains, the competitor who completed the test in the shortest amount of time will be ranked higher.
- Results announced at the National Leadership Conference are considered official and will not be changed after the conclusion of the National Leadership Conference.

#### **Penalty Points**

- Competitors may be disqualified if they violate the Code of Conduct or the Honor Code.
- Five points are deducted if competitors do not follow the Dress Code or are late to the testing site.

#### Recognition

A maximum of 10 entries (individuals or teams) may be recognized per event.

#### Americans with Disabilities Act (ADA)

FBLA complies with the Americans with Disabilities Act (ADA) by providing reasonable
accommodations for competitors. Accommodation requests must be submitted through the
conference registration system by the official registration deadline. All requests will be
reviewed, and additional documentation may be required to determine eligibility and
appropriate support.

#### **Electronic Devices**

 Unless approved as part of a documented accommodation, all cell phones, smartwatches, electronic devices, and headphones must be turned off and stored away before the competition begins. Visible devices during the event will be considered a violation of the FBLA Honor Code.



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#### Sample Preparation Resources

• Official sample test items can be found in <u>FBLA Connect</u>. These sample items showcase the types of questions that may be asked on the test and familiarize competitors with the multiple-choice item options.

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#### Study Guide: Knowledge Areas and Objectives

#### Computer Hardware (20 test items)

- 1. Describe different types of computers and their use cases (mainframe, personal, tablet, supercomputer, etc.)
- 2. Discuss common computer hardware components and their functions (e.g., CPU, RAM, hard drive)
- 3. Troubleshoot common computer hardware problems
- 4. Explain the purposes of expansion cards (e.g., graphics cards, sound cards, network adapters)
- 5. Evaluate decisions regarding the purchase and upgrade of computer hardware
- 6. Describe computer storage devices (e.g., SSD, HDD, external drives)
- 7. Explain the steps of basic hardware installation and configuration
- 8. Evaluate the performance of computer system components (CPU, GPU, etc.)
- 9. Discuss connectivity devices and peripherals (e.g., printers, scanners, USB devices, Bluetooth)
- 10. Interpret hardware requirements for running software

#### **Software Fundamentals** (10 test items)

- 1. Distinguish between system, application, and specialized software
- 2. Explain the importance of software updates and patches
- 3. Explain the functions of various system utilities (e.g., antivirus, disk management, backup tools)
- 4. Describe appropriate use cases for specialized software applications
- 5. Identify the steps of the Software Development Life Cycle
- 6. Describe how software interacts with hardware to perform tasks

#### **Operating Systems** (15 test items)

- 1. Explain the purpose and functions of operating systems
- 2. Discuss types of operating systems (e.g., mobile, desktop)
- 3. Troubleshoot common operating system issues (e.g., blue screen of death, crashing, boot issues)
- 4. Discuss the characteristics of different platform operating systems (e.g., Windows, macOS, Linux, Android, iOS)
- 5. Discuss basic operating system processes (e.g., booting and partitioning, caching, virtual memory, file systems)
- 6. Apply basic command-line utilities for Windows and Unix-like systems (e.g., file management, process monitoring, troubleshooting)
- 7. Describe steps for configuring an operating system (e.g., account setup and management, permissions, updates)

#### **Software Applications** (10 test items)

- 1. Evaluate the most appropriate type of application for a business task (e.g., word processing, spreadsheet, email, presentation)
- 2. Discuss the uses of common workplace applications (e.g., word processing, spreadsheet, email, collaboration)
- Describe email application features used in business and collaboration contexts
- 4. Explain the functions of team collaboration software (e.g., Microsoft Teams, Zoom)
- 5. Troubleshoot common email problems (e.g., spam, not receiving emails, fraud, phishing)



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#### Modern Technologies (10 test items)

- 1. Describe the function and applications of the cloud
- 2. Describe the purpose and applications of virtualization
- 3. Describe the Internet of Things (IoT)
- 4. Discuss use cases for artificial intelligence
- 5. Describe the nature of artificial intelligence

#### **Networking Concepts** (20 test items)

- 1. Describe different types of networks (e.g., LAN, WAN)
- 2. Describe basic network security practices (e.g., encryption, VPN, packet sniffing, authentication)
- 3. Discuss common network security threats (e.g., viruses, phishing, backdoors)
- 4. Describe different connectivity technologies (e.g., Ethernet, Wi-Fi, Bluetooth)
- 5. Discuss the functions of common network devices (e.g., modems, routers, switches)
- Discuss types of network environments (e.g., peer-to-peer, client-server, thin client)
- 7. Explain relationships between major network components (e.g., servers, clients, switches)
- 8. Describe each layer of the Open System Interconnection (OSI) model
- 9. Explain basic networking protocols (e.g., TCP/IP, UDP, DHCP, SMP)
- 10. Discuss the characteristics of network topologies (e.g., star, bus, ring)
- 11. Describe tools and procedures for troubleshooting networks (e.g., ping, tracert, checking cable connections)

#### **Information Management Concepts** (15 test items)

- 1. Describe data storage methods (local, cloud, etc.)
- 2. Discuss basic database operations and use cases
- 3. Explain the importance of disaster recovery and list examples
- 4. Discuss physical and digital security practices to protect information
- 5. Describe ways in which personal data is collected, stored, stolen, and sold
- 6. Explain regulations pertaining to intellectual property, privacy, and licensing

#### **References for Knowledge Areas & Objectives**

Association for Computing Machinery. Information Technology Curricula 2017.

https://www.acm.org/binaries/content/assets/education/curricula-recommendations/it2017.pdf

Codecademy. Introduction to IT. https://www.codecademy.com/learn/introduction-to-it

CompTIA. CompTIA A+ Certification Exam Core 1 Objectives. <a href="https://partners.comptia.org/docs/default-source/resources/comptia-a-220-1101-exam-objectives-(3-0)">https://partners.comptia.org/docs/default-source/resources/comptia-a-220-1101-exam-objectives-(3-0)</a>

CompTIA. CompTIA A+ Certification exam Core 2 Objectives. <a href="https://partners.comptia.org/docs/default-source/resources/comptia-a-220-1102-exam-objectives-(3-0)">https://partners.comptia.org/docs/default-source/resources/comptia-a-220-1102-exam-objectives-(3-0)</a>

Mississippi Department of Education. Intro to Information Technology.

https://www.mdek12.org/sites/default/files/documents/MBE/MBE-2023(4)/tab-h.5.-intro-to-information-tech 0.pdf



# **Introduction to Information Technology**

Ohio Department of Education. Information Technology Content Standards 2018.

https://education.ohio.gov/getattachment/Topics/Career-Fields/Information-Technology-Career-Field/IT Standards 2018.pdf.aspx?lang=en-US