

Computer Applications (High School)

Computer Applications provides members with the opportunity to demonstrate knowledge around competencies in different applications in computing. This competitive event consists of an objective test and production test.

Event Overview

Division: High School **Event Type:** Individual **Event Category:** Production

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

below) and Production Test

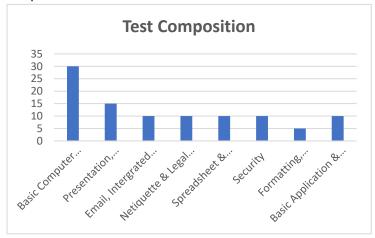
Objective Test Time: 50 minutes

Production Test Time: 2 hours, due May 14, 2024 **NACE Connections:** Career & Self-Development

Equipment Competitor Must Provide: Pencil for Objective Test, Computer for Production Test **Equipment FBLA Provides:** One piece of scratch paper per competitor for Objective Test, Production Test Tasks

Objective Test Competencies

- Basic Computer Terminology and Concepts
- Presentation, Publishing, and Multimedia Applications
- Spreadsheet and Database Applications
- Basic Application Knowledge and Word Processing
- E-mail, Integrated, and Collaboration Applications
- Netiquette and Legal Issues
- Security
- Formatting, Grammar, Punctuation, Spelling, and Proofreading



Production Test Competencies

- Create, Search, and Query Databases
- Spreadsheet Functions and Formulas
- Text Slide Graphics and Presentations
- Business Graphics
- Word Processing



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District

Testing will take place prior to the District Leadership Conference. Check the Call to Conference for your District for specific instructions and deadlines. Production testing information will be emailed to the local adviser after registration closes.

State

Production events are due using an online submission link prior to the State Leadership Conference. Instructions will be emailed to the local adviser after registration closes.

Any events with an objective test will have an online testing component on-site at the State Leadership Conference. Students will need to have access to a personal device (preferably a laptop) to be connected to the Internet for online testing.

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.
- 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).
- Only competitors are allowed to plan, research, and prepare their production tests.
- Each competitor must compete in all parts of an event for award eligibility.
- 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.



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Recognition

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

Event Administration

- This event has two parts: Objective Test and Production Test
- Objective Test
 - o The objective test is 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.
 - All electronic devices such as cell phones and smart watches must be turned off before competition begins.
- Production Test
 - Submission Deadline: An accessible link to all the tasks must be uploaded in the conference registration system by May 14, 2024
 - The production test is administered and proctored by an adult at a designed school-site prior to the NLC. Administration procedures for the production test are determined by the state chair/adviser.
 - The production test is a set of tasks based on the competencies for the competitor to complete.
 - Documents produced for this event must be prepared by the competitor without help from the adviser or any other person.
 - Calculators cannot be used on the production test.
 - The Format Guide, found on the Competitive Events website (<u>www.fbla.org</u>) can be used for the production test.

Scoring

- The rating sheet will be released with the production test.
- Production Test is 85% of the total score.
- Objective Test is 15% of the total score.
- The Production Test score will be used to break a tie.

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



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Electronic Devices

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



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Study Guide: Competencies and Tasks

- A. Basic Computer Terminology and Concepts
 - 1. Use and understand basic computer terminology.
 - 2. Explain the purpose, operation, and care of hardware components.
 - 3. Install, configure, optimize, and upgrade operating software and application software on computers and other portable devices.
 - 4. Identify tools, diagnostic procedures, and troubleshooting techniques for components and operating systems for personal computers, laptops, and portable devices.
 - 5. Apply basic commands and navigate the operating system including such things as creating backups and determining memory and disk space.
 - 6. Input data and commands using peripherals (keyboard, light pen, mouse, scanner, and voice recognition).
 - Manage file storage through the use of file management techniques such as copy, move, store, rename, retrieve, save, delete, compress, decompress, and create/manipulate folders and directories.
 - 8. Use a browser to search and navigate hypertext documents and to download files.
 - 9. Use Internet search engines and understand their advantages and disadvantages.
 - 10. Evaluate the accuracy, relevance, and comprehensiveness of information retrieved from the Web.
 - 11. Identify the different parts of a browser window (pull-down menus, toolbar, address box, status bar, scroll bar, close button, maximize and minimize buttons, and title bar).
 - 12. Analyze emerging technologies used by business and industry.
 - 13. Identify the fundamental principles and basic concepts of installing, configuring, optimizing, and upgrading printers and scanners.
 - 14. Identify tools and diagnostic procedures to troubleshoot printers and scanners and perform basic printer functions (load paper, change cartridge, repair paper jam, etc.).
 - 15. Identify and use appropriate resources to obtain assistance (Help menu, manuals, Web site).
 - 16. Evaluate advantages and disadvantages of various processing, storage, retrieval, and transmission technologies.
 - 17. Identify the fundamental principles and basic concepts of networks including installing, configuring, optimizing, and upgrading.
 - 18. Identify network devices including network connectivity hardware and describe their functions.
- B. Presentation, Publishing, and Multimedia Applications
 - 1. Identify components of a presentation program (layout views, slide, toolbars, and dialog box).
 - 2. Use presentation software to create a presentation with multiple types of slides incorporating effective use of text, graphics, fonts, builds, preset animation, and transitions.
 - 3. Use presentation software to include diagrams, color and graphic modifications, animation schemes, custom backgrounds, action buttons, hyperlinks, sound, video, and speaker notes.
 - 4. Deliver presentation with supporting materials.
 - 5. Apply desktop publishing principles to create, design, edit, and produce documents using text and graphics.
 - 6. Create visual communications involving text and graphic data (brochures, pamphlets, fliers, and newsletters).



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- 7. Utilize graphic manipulation techniques (wrap text, Word Art) to insert visual aids into document.
- 8. Create visual communications involving artwork (freehand drawing applications, clip art, digitized images).
- 9. Save cropped or modified images in different file formats.
- 10. Demonstrate input of data and graphics from various sources (Web, scanner, digital camera).
- 11. Design, create, edit, and format web pages incorporating various types of media (text, image, video, and audio).
- 12. Apply multimedia software to create multimedia projects.

C. Spreadsheet and Database Applications

- 1. Define spreadsheet terminology (cell, row, column, range, label, value, formula, function, worksheet, relative, absolute, and legend).
- 2. Create, edit, save, and print worksheets using spreadsheet commands, functions, and formulas.
- 3. Design and enhance worksheets by inserting, deleting, moving, and copying columns and rows
- 4. Use electronic spreadsheet to create, save, print, modify, and obtain graphs and appropriate charts with titles and legends.
- 5. Rename, rearrange, and manipulate multiple worksheets in a workbook.
- 6. Use an electronic spreadsheet program to enhance the appearance of a spreadsheet by changing fonts, foreground and background colors, and centering text across columns.
- 7. Define database terminology (query, DBMS, field, record, file, and data type).
- 8. Plan and create a database.
- 9. Enter data and edit fields and records for a particular situation.
- 10. Query, sort, prioritize, merge, and retrieve data from databases.
- 11. Use a database management program to create, format, maintain, and print reports and tables from a simple relational database.

D. Basic Application Knowledge and Word Processing

- 1. Use help features and reference materials to learn software and solve problems.
- 2. Create, save, and retrieve word processing files.
- 3. Use word processing software to create, format, and edit business documents such as letters, memoranda, reports, tables, and resumes in mailable form.
- 4. Demonstrate the use of character formatting features (bold, underline, italics, font styles and sizes, superscript, and subscript).
- 5. Demonstrate the use of paragraph formatting features (tabs, indentations, line spacing, and enumerated items).
- 6. Demonstrate the use of page formatting features (margins, justification, vertical placement, orientation, page breaks, headers, and footers).
- 7. Demonstrate document editing skills using spell/grammar check, thesaurus, search/replace, and other document properties.
- 8. Create documents using mail merge features.
- 9. Create and use macros and templates.
- E. E-mail, Integrated, and Collaboration Applications
 - 1. Produce documents integrating word processing, spreadsheet, and related charts, database files, reports, and presentation files.



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- 2. Use an electronic mail program to send and receive electronic mail including an attachment.
- 3. Manage personal schedule and contact information to include distribution lists.
- 4. Research privacy issues related to e-mail accounts and dangers of receiving e-mails from unknown sources.
- 5. Identify inappropriate actions related to forwarding and mass e-mailings.
- Demonstrate skills using word processing, spreadsheet, database, and presentation software to complete workgroup collaboration to include inserting and reviewing comments.
- 7. Use collaborative/groupware applications to manage shared schedule, contact information, shared files, online information, instant messaging, or virtual meetings.

F. Netiquette and Legal

- 1. Explain concepts related to copyright rules and regulations and public domain (images, music, video, and software).
- 2. Demonstrate a basic understanding of issues regarding software copyright, software licensing, and software copying.
- 3. Discriminate between ethical and unethical uses of computers and information.
- 4. Identify potential abuse and explain the consequences of illegal and unethical use of information technologies (piracy, illegal downloading, licensing infringement, and inappropriate use of software, hardware, and mobile devices).
- 5. Apply netiquette skills to create, send, receive, and reply to electronic communications, including e-mail and telephone.

G. Security

- 1. Identify security issues related to computer hardware, software, and data use.
- 2. Explain concepts of security, integrity, courtesy, and confidentiality related to information and communication systems.
- 3. Adhere to privacy, safety and security policies and legislation (acceptable use policy, Web page policies, computer crime, fraud, and abuse).
- 4. Demonstrate an awareness of computer viruses and basic understanding of ways to protect a computer from viruses.
- 5. Diagnose and troubleshoot hardware, software, and data security issues.
- 6. Perform preventative maintenance techniques for computer security.

H. Formatting, Grammar, Punctuation, Spelling, and Proofreading

- 1. Apply basic formatting procedures and manipulate data in letters, reports, simple tables, spreadsheets, graphics, graphs and charts, and databases.
- 2. Use correct grammar, spelling, and punctuation when producing documents.
- 3. Utilize appropriate functions and references for spelling, grammar, and proofreading.
- 4. Use appropriate capitalization, punctuation, number expression rule, and editing/proofreading skills to produce mailable documents.