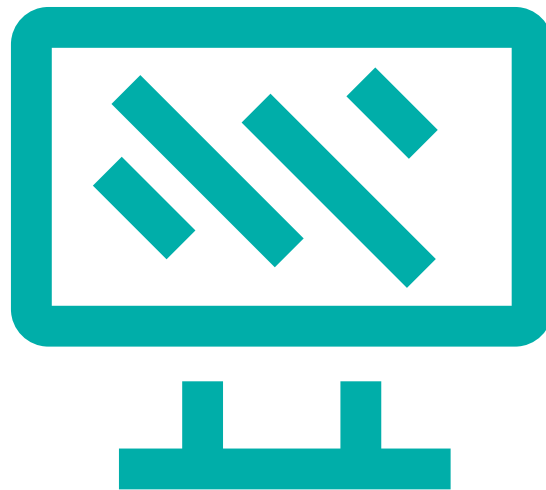




**NOCTI**  
State Customized  
Credential Blueprint



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# **Management Information Systems (PA)**

Code: 8092 / Version: 01  
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## General Assessment Information

### Blueprint Contents

General Assessment Information	Sample Written Items
Written Assessment Information	Performance Assessment Information
Specific Competencies Covered in the Test	Sample Performance Job

**Test Type:** The Management Information Systems PA Assessment was developed based on a Pennsylvania statewide competency task list and contains a multiple-choice and performance component. This assessment is meant to measure technical skills at the occupational level and includes items which gauge factual and theoretical knowledge.

**Revision Team:** The assessment content is based on input from Pennsylvania educators who teach in approved career and technical education programs.



52.1201- Management  
Information Systems,  
General



Career Cluster - Information  
Technology

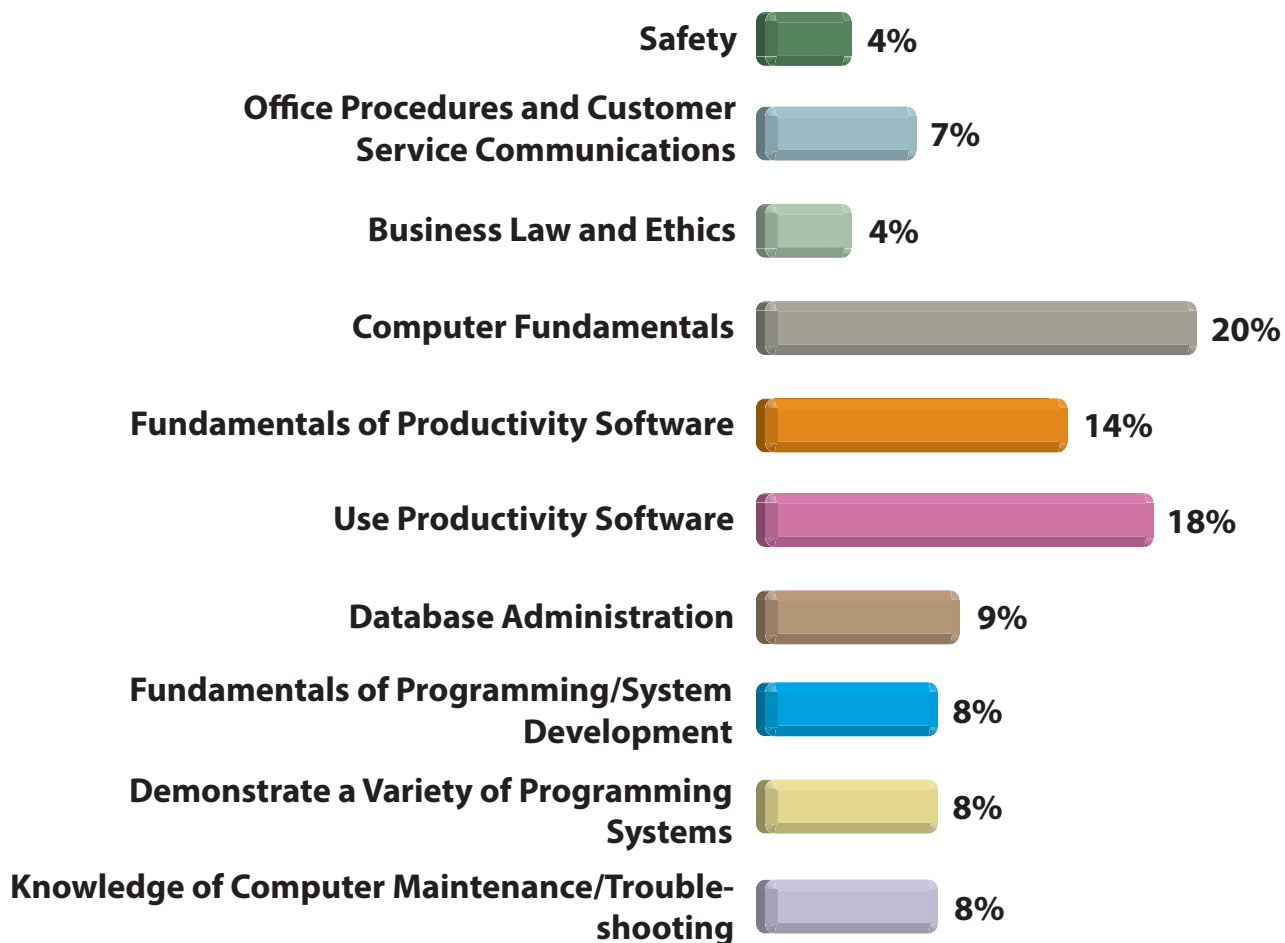
## Written Assessment

NOCTI written assessments consist of questions to measure an individual's factual theoretical knowledge.

**Administration Time:** 3 hours

**Number of Questions:** 200

**Number of Sessions:** This assessment may be administered in one, two, or three sessions.



## Specific Standards and Competencies Included in this Assessment

### **Safety**

- Follow ergonomic practices
- Organize and maintain workstation
- Describe and demonstrate ways to dissipate electrostatic discharge
- Discuss risks to computer if static electricity is present

### **Office Procedures and Customer Service Communications**

- Identify, proofread, and correct grammar errors in all documents
- Demonstrate proper interpersonal communication skills
- Develop time management skills by setting priorities and perform multiple tasks
- Maintain records, report, or files
- Identify the ways a customer service representative can develop a rapport with customers
- Explain the importance of putting extra effort into satisfying customers

### **Business Law and Ethics**

- Learn business law and business ethics vocabulary
- Explain how advances in computer technology impact such areas as intellectual property, contract law, criminal law, tort law, and international law
- Explain crimes often associated with business and organizations (e.g., embezzlement, extortion, computer crimes)
- Identify improper use of business technology and property (e.g., computers, personal digital assistants, cell phones, telephones)
- Identify legal safeguards to protect your right of computer privacy
- Identify Cyberlaw as an emerging trend in the 21st century

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## Specific Standards and Competencies (continued)

### Computer Fundamentals

- Identify terminology and the use of the World Wide Web
- Research and evaluate new technologies
- Use search engines to locate resources
- Identify components of the system unit, including input/output devices
- Navigate and manage operating systems and utility programs
- Utilize communication devices and networks
- Employ computer security, ethics, and privacy

### Fundamentals of Productivity Software

- Edit a document using word processing software
- Edit formats, footnotes, and paragraphs
- Edit tables and charts
- Generate form letters, mailing labels and envelopes
- Perform desktop publishing using word processing software
- Edit a document using spreadsheet software
- Edit graphs and associated data using spreadsheet software
- Edit data in multiple worksheets using spreadsheet software
- Edit macros
- Edit and export lists using spreadsheet software
- Perform business mathematical statistics and built-in functions using spreadsheet software
- Send and receive messages using communications software
- Edit a slide presentation using multimedia software
- Edit text, graphics, and tables to a presentation using multimedia software

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## Specific Standards and Competencies (continued)

### Use Productivity Software

- Create a document using word processing software
- Create formats, footnotes, and paragraphs
- Edit tables and charts
- Create a document using spreadsheet software
- Create graphs and associated data using spreadsheet software
- Create data in multiple worksheets using spreadsheet software
- Create lists using spreadsheet software
- Create a slide presentation using multimedia software
- Add text, graphics, and tables to a presentation using multimedia software
- Produce a customized slide presentation using all available tools

### Database Administration

- Demonstrate a working knowledge of database design fundamentals and terminology
- Enter updates and maintain databases
- Create reports, forms, and combo boxes
- Import and export data into other applications
- Define database management theories
- Create entity–relationship diagram
- Create data queries using simple and complex structured query language
- Aggregate and sort data in queries
- Include calculated and built-in functions and procedures in queries



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## Specific Standards and Competencies (continued)

### Fundamentals of Programming/System Development

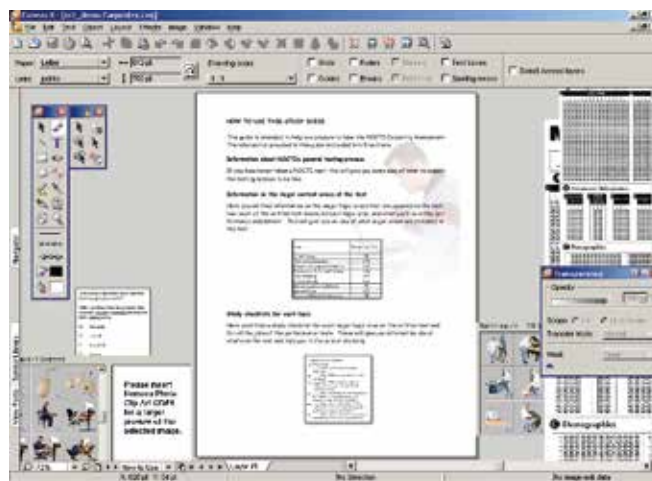
- Describe a working knowledge of the System Development LifeCycle (System Investigation/project proposal, Analysis, Design, Code/Text, Implementation and Maintenance)
- Differentiate programming fundamentals – system processing, integration, generations of languages, binary code, object code, source code
- Declare and manipulate appropriate data types variables, such as arrays and string data
- Utilize program control structures (e.g., decisions, loops, functions/subroutines, arithmetic and logical operations)

### Demonstrate a Variety of Programming Systems

- Create working graphical user interfaces (GUI)
- Create, test, and debug successful computer programs
- Create clear and thorough program documentation

### Knowledge of Computer Maintenance/Troubleshooting

- Demonstrate the troubleshooting theory
- Analyze common hardware processing, problems, and performance issues
- Analyze common software processing, problems, and performance issues
- Integrate common preventive maintenance techniques
- Analyze basic network processing, problems, and performance issues



## Sample Questions

**The term, malware, refers to software designed to**

- A. enhance the appearance of a web browser
- B. damage a computer system
- C. convert text files to binary files
- D. test for damage on the hard drive

**The computer's clipboard is**

- A. a place in the memory to aid in cutting, copying, and pasting
- B. a new word processor
- C. hardware used to hold papers and other documentation
- D. used with the delete key

**The two methods to consolidate data from multiple spreadsheets are position and**

- A. location
- B. placement
- C. intersection
- D. category

**The purpose of a substring function is to**

- A. separate an alpha field into smaller parts
- B. have one part of a header appear under a main heading
- C. be able to print a formula such as H<sub>2</sub>O
- D. have a string of data underneath another string of data in a report

**The information processing cycle includes**

- A. input, printing, processing, and output
- B. input, processing, output, and storage
- C. storage, research, data entry, and output
- D. organization, input, dictation, and storage

*(Continued on the following page)*



### Sample Questions (continued)

**A wrist rest is a common device used to prevent**

- A. stiff wrists
- B. tired wrists
- C. carpal tunnel syndrome
- D. wrist strain syndrome

**All the office assistants in a firm are trained to cooperate \_\_\_\_\_ themselves.**

- A. outside
- B. within
- C. between
- D. among

**A two-letter country code in a URL is the**

- A. file
- B. page
- C. domain
- D. keyword

**The ability to process both numerical and word processing data by collecting, deleting, modifying, analyzing, and summarizing is referred to as**

- A. desktop publishing
- B. records dispersal
- C. data manipulation
- D. direct observation

**Visual programming languages, often used for GUI development, are known as \_\_\_\_\_ generation languages.**

- A. 2nd
- B. 3rd
- C. 4th
- D. 5th

## Performance Assessment

NOCTI performance assessments allow individuals to demonstrate their acquired skills by completing actual jobs using the tools, materials, machines, and equipment related to the technical area.

**Administration Time:** 3 hours

**Number of Jobs:** 3

### Areas Covered:

#### **52% Spreadsheet**

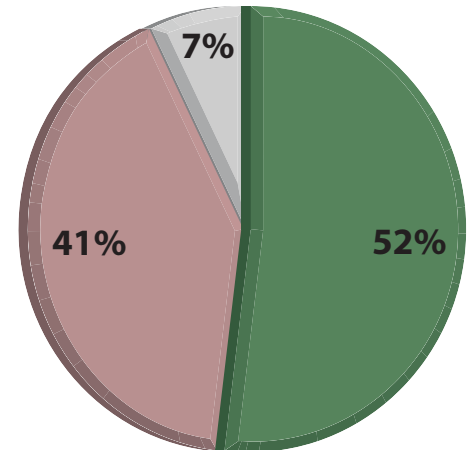
Participants will place header, create spreadsheet heading and column headings, enter data and formulas, get computer totals, use functions, format correctly, create a pie chart, save the spreadsheet, and print the material.

#### **41% Database Design and Reports**

Participants will title the database, create fields within the table, enter data, print records and fields, print tabular report, save database, query report A&B, place name in header, close and exit.

#### **7% Device Identification**

Participant will identify computer features.



## Sample Job

### Database Design and Reports

**Maximum Time:** 1 hour and 30 minutes

**Participant Activity:** Using a database application package, the participant will set up a database file; enter data provided; print all records and all fields; print a tabular report, save the database to a CD or other digital media storage device, create two separate queries, close the database and exit the application.

