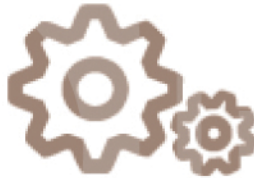


*Experienced Worker Assessment Blueprint*

*Computer Technology*



## Specific Competencies and Skills Tested in this Assessment:

### General Computer Knowledge/Concepts

- Recognize computer information technology
- Use system analysis concepts
- Flowcharting logic
- General logic
- Understand I/O devices
- Prepare hardware for operation
- Create system backup
- Understand networks
- Understand using a PC
- General data communications
- General knowledge of programming concepts
- Compare program languages
- Produce documentation
- Understand 3rd and 4th generation vs. C/S
- Basic math skills
- Convert numbers manually from one number system to another
- Algebraic expression (Boolean logic)
- Understand data hierarchy
- Understand the processing environment
- Recognize the human aspects in information systems
- Apply technology to a business requirement
- Combine technologies into a cohesive solution/problem
- Ergonomics



### File Preparation

- Understand file types (i.e. binary, ASCII)
- Understand various database structures
- Understand various file system structures

## *Specific Competencies and Skills continued:*

### **General Personal Computer Environment**

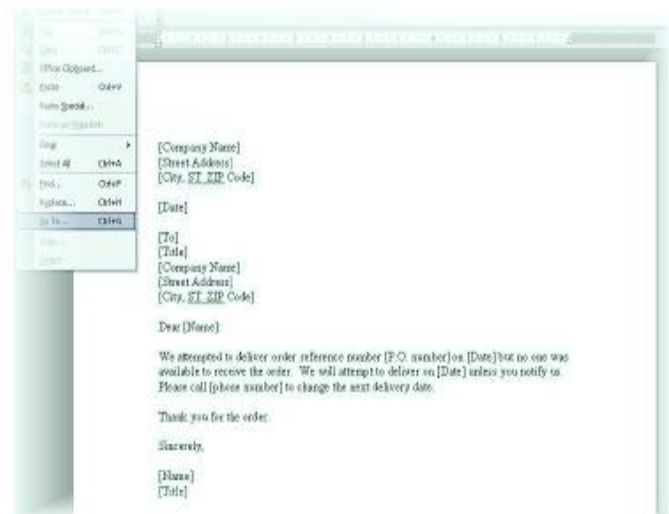
- Understand DOS/UNIX/Windows
- Understand windowing systems
- Understand keyboard functions
- Understand storage technology
- Use a spreadsheet application package
- Database management concepts/recognition
- Use a word processing package
- Create step-by-step database structure
- Use presentation software
- Use project/scheduling software
- Use email software
- Use web browser
- Use utility software

### **Utility System Software**

- Knowledge of memory management
- Knowledge of file compression/defragmentation

### **Hardware**

- Recognize storage terms
- Recognize components that comprise the central processing unit and I/O channels
- Recognize printing devices
- Knowledge of input devices
- Recognize utility driver devices
- Knowledge of what magnetic media to use and when
- CD technology
- Knowledge of graphical devices
- Knowledge of communication devices



## *Specific Competencies and Skills continued:*

### **Professional Behavior**

- Determine appropriate communication techniques
- Understand how to follow directions
- Determine appropriate listening techniques
- Understand copyright laws
- Understand office ethics
- Understand confidentiality

### **Networking/Data Communication**

- Knowledge of network classifications
- Knowledge of network architecture
- Knowledge of telecommunications media
- Knowledge of telecommunication processors
- Knowledge of telecommunication applications
- Internet



### **Operating Systems**

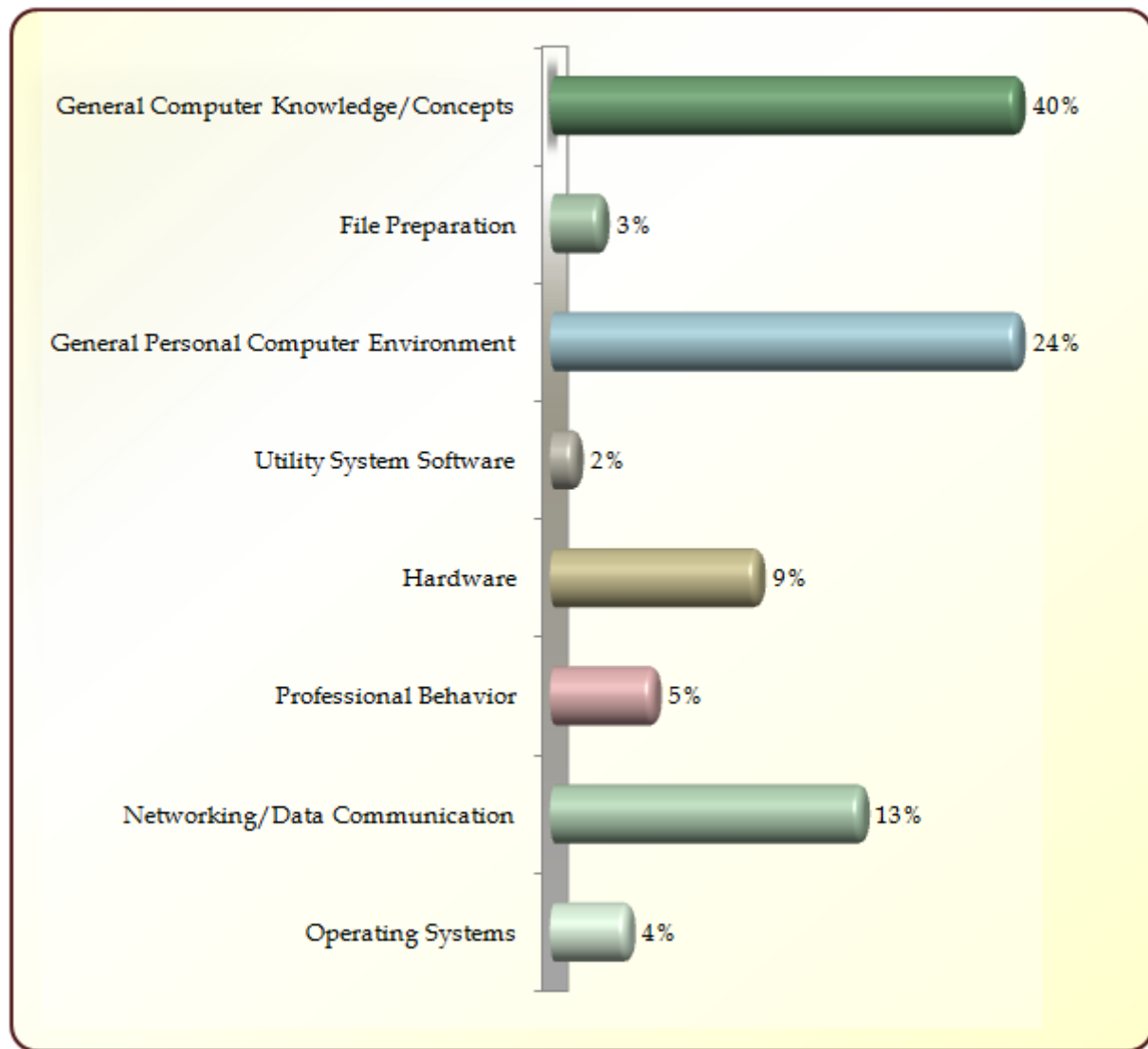
- Understand various operating systems

## Written Assessment:

Administration Time: 3 hours

Number of Questions: 155

### Areas Covered:



## Sample Questions:

Which of the following is a valid computer numbering system?

- A. octal
- B. Arabic numerals
- C. octagon
- D. compound interrogatives

Microsoft Windows® is a graphical

- A. influx system
- B. group
- C. dialog box
- D. user interface

In a bus topology

- A. multiple computers are linked to a central, or host, computer
- B. all communications travel the length of the network
- C. each computer is connected to two others in a ring
- D. a computer can transmit a communication only when it has a pattern of bits

An operating system can be described as

- A. a collection of programs and drivers which produces an operating environment
- B. methods and procedures used to solve a specific problem
- C. a series of programs that are used to create application programs
- D. both "B" and "C"

The most widely used method to display a logic design is

- A. a network chart
- B. system software
- C. the decision table
- D. the flowchart

## Performance Assessment:

**Administration Time:** 3 hours and 30 minutes

**Number of Jobs:** 4

### Areas Covered:

**43% DOS/Windows® Applications**

Format diskettes, make one bootable, copy files into root directory, create files and save to system diskette, create subdirectories/file folders, print out directory structure with date, time, file size, etc., print out system diskette directory after creation of tree structure, create and execute batch file, duplication of system diskette.

**19% Letter of Application/Word Processing Applications**

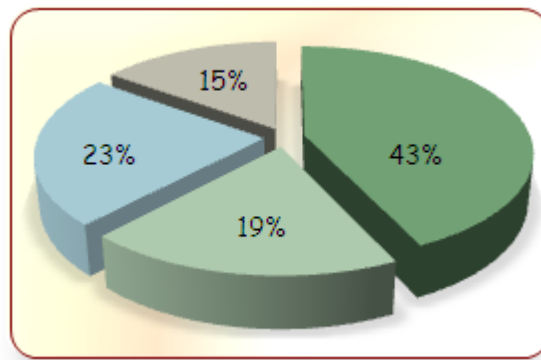
Format, edit and proofread modified block business letter: vertical alignment, spacing between sections, margins and error correction.

**23% Spreadsheet Applications**

Create a spreadsheet based on given parameters: alignment, appearance, format and calculations.

**15% Database Applications**

Create a database based on information provided: file structure, data entered properly, data manipulation (edit, delete, and add records).



**Sample Job:** DOS/Windows® Applications

**Estimated Job Time:** 1 hour

**Participant Activity:** The participant will format diskettes, making one diskette bootable. Participant will display a directory of the bootable diskette and create the directory tree structure shown in performance test booklet. From the root directory, the participant will display a directory tree of the system diskette, redirect the output and create files as listed in performance test booklet.

