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## **Information Technology Sequence 3**

Code: 8143

# **MISSOURI INFORMATION TECHNOLOGY**

## **SEQUENCE 3**

**Test Code: 8143**

**Version: 01**

**Computer Applications 50%**

**Desktop Publishing 25%**

**Web Design 25%**

**Specific competencies and skills tested in this assessment:**

### *Computer Applications*

#### **Execute Basic Computer Operations**

Use program interface (e.g., menu items, ribbons, toolbars, dialog boxes)

Manage and transfer files

Identify file formats and extensions

Perform basic troubleshooting and maintenance

Identify hardware and software specifications to purchase a computer (e.g., RAM, processor, hard drive, software, and price)

Save files to various storage devices (e.g., CDs, USB, hard drive, DVD)

Determine appropriate software applications for tasks

#### **Construct Business Documents using Word Processing Applications**

Create and format business documents (e.g., letters, memos, outlines, newsletters, and reports)

Set printer specifications

Proofread and edit documents

Manipulate the features of word processing software to enhance documents (e.g., headers, footers, tabs)

Create and format tables

Create mail-merge documents

Insert and manipulate graphics

Create documents using templates

Prepare envelopes and labels

Illustrate the use of enhancement features (e.g., borders, lines, shading, bold, bullets)

Demonstrate use of automatic features (e.g., AutoCorrect, spell-check, thesaurus)

***Missouri Information Technology – Sequence 3 (continued)***

**Construct Business Documents using Spreadsheet Applications**

Create, design, and edit spreadsheets

Create basic formulas with addition, subtraction, multiplication, and division

Format cell, column, and row contents (e.g., font, color, alignment, shading, decimal)

Format columns and rows

Use basic functions/formulas (e.g., auto sum, average, IF)

Create, format, and edit charts and graphs

Interpret and organize spreadsheet data (e.g., sort and filter)

Set print specifications for formulas, graphs, worksheets, etc.

Use relative and absolute cell references

**Construct Business Documents using Database Applications**

Create and manipulate a database

Process material using database features (e.g., sort, filter, and merge)

Distinguish between different field types (e.g., text, numeric)

**Construct Business Documents using Presentation Applications**

Create, format, and edit presentations

Enhance presentations (e.g., sound, animation, graphics, transitions, and video)

Apply design and layout principles to presentations

Set print specifications for outline, slides, handouts, etc.

Utilize proper presentation etiquette (e.g., number of bullets, lines, words, and notes)

Integrate input from various software applications

**Explore the Internet and Online Classroom Portals**

Demonstrate principal usages of online communication (e.g., upload, download, attaching files)

Identify copyright principles (e.g., public domain, copy protection, licensing)

Evaluate Internet resources

***Desktop Publishing***

**Discuss Foundational Concepts**

Identify and apply tools and palettes.

Explain copyright issues related to graphic arts/desktop publishing (e.g., legal, ethical)

Demonstrate sensitivity to bias (e.g., culture, gender, age)

Plan a preliminary layout for a publication using manual or digital tools

Develop a work schedule to meet deadlines

Use correct grammar, punctuation, and spelling

**Perform Publication Layout**

Set appropriate page layout options (margins, columns, double-sided, facing pages, page numbering)

***Missouri Information Technology – Sequence 3 (continued)***

**Demonstrate Typography Concepts**

Compose text (e.g., headings, captions, body text)

Import text files and other word processing documents into publications

Explain the usage of font types (e.g., serif, sans serif, decorative)

Manipulate text features and formats (e.g., wordwrap, hyphenations, drop cap, color, gradient, text path)

**Manage Images Appropriately**

Create images

Determine appropriate image file formats (e.g., bmp, tiff, jpeg, gif, pict, eps)

**Demonstrate Design Concepts**

Plan the proper use of white space

Apply the proper use of color

Create an effective focal point (e.g., primary, secondary)

Create appropriate headlines

Position captions

Apply design principles (e.g., movement, balance, symmetry)

Apply layering techniques in publications

Match the design to the appropriate audience

**Create Business Promotional Materials**

Create a flyer and advertisement

Create stationery sets (e.g., labels, business cards, notepads, invoices, letterhead)

Create multi-page, multi-column documents (e.g., newsletters, magazines, menus, programs)

Create brochures (single/multiple)

Create promotional items (e.g., CD covers, T-shirts, bumper stickers)

**Perform Print Process**

Use print preview or WYSIWYG layout before printing

Select an appropriate printer and printer attributes (e.g., duplexing, tray size, paper size)

Convert desktop publication to format for exporting/Web posting (e.g., PDF, HTML)

**Develop a Portfolio**

Explain ways portfolios can be used

**Missouri Information Technology – Sequence 3 (continued)**

***Web Design***

**Apply Introductory Principles**

Explain how resolution affects Web page creation

**Design an Effective Website**

Define Web page design principles and elements

Evaluate Websites based on design elements and principles (e.g., alignment, color, navigation, user feedback)

Plan an organized layout

Select an appropriate navigational structure

Use Web-safe colors and fonts

Employ proofreading and editing techniques

Apply Web accessibility standards

**Demonstrate Image Creation and Manipulation Skills**

Recognize the different image types and their extensions (e.g., gif, jpg)

Use layering techniques in image editing program to better manage images (e.g., ordering, arranging, naming)

Optimize an image to improve load time

**Demonstrate Page Creation Skills**

Use Web authoring software to create Web pages

Identify and apply HTML tags and attributes for basic Web page design (e.g., title, metadata, table, link)

Create and use a template

**Apply Effective Web Page Management Techniques**

Organize all content files into folder management

Create meta tags to be utilized by a variety of search engines

Apply copyright laws in all Web-related projects

**Use Advanced Web Creation Techniques**

Create interactive design elements (e.g., rollover, swap image, slideshow)

Use Cascading Style Sheets (CSS) to control page elements (e.g., external, internal, inline)

***Missouri Information Technology – Sequence 3 (continued)***

**Written Assessment:**

Administration Time: 3 hours

Number of Questions: 151

***Areas covered:***

50%	Computer Applications
25%	Desktop Publishing
25%	Web Design

***Sample Questions:***

To navigate to the next cell horizontally and then vertically in a word processing table, press the \_\_\_\_\_ key.

- A. tab
- B. enter
- C. alt
- D. command

Which of the following can be printed using presentation software?

- A. queries
- B. CD covers
- C. forms pages
- D. notes pages

Which of the following fields would be considered a text data type?

- A. (231) 555-1212
- B. \$137.89
- C. 3/2/2013
- D. 24

Converting information from one program to another is called

- A. importing
- B. exporting
- C. copying and pasting
- D. cutting and pasting

Two types of hyperlinks are

- A. internal and external
- B. inside and outside
- C. primary and secondary
- D. private and public