

Excel 2016: Core Data Analysis, Manipulation, and Presentation; Exam 77-727

Successful candidates for the Microsoft Office Specialist Excel 2016 certification exam will have a fundamental understanding of the Excel environment and the ability to complete tasks independently. They will know and demonstrate the correct application of the principle features of Excel 2016. Candidates will create and edit a workbook with multiple sheets, and use a graphic element to represent data visually. Workbook examples include professional-looking budgets, financial statements, team performance charts, sales invoices, and data-entry logs.

MOS 2016 certification exams introduce a new performance-based format for improved testing of a candidate's knowledge, skills and abilities using the MOS 2016 programs:

- MOS 2016 exam task instructions generally do not include the command name as in previous versions. For example, function names are avoided, and are replaced with descriptors. This means candidates must understand the purpose and common usage of the program functionality in order to successfully complete the tasks in each of the projects.
- The MOS 2016 exam format incorporates multiple projects.

Objective Domains

Create and Manage Worksheets and Workbooks

- 1.1 Create Worksheets and Workbooks**
 - 1.1.1 Create a workbook
 - 1.1.2 Import data from a delimited text file
 - 1.1.3 Add a worksheet to an existing workbook
 - 1.1.4 Copy and move a worksheet
- 1.2 Navigate in Worksheets and Workbooks**
 - 1.2.1 Search for data within a workbook
 - 1.2.2 Navigate to a named cell, range, or workbook element
 - 1.2.3 Insert and remove hyperlinks
- 1.3 Format Worksheets and Workbooks**
 - 1.3.1 Change worksheet tab color
 - 1.3.2 Rename a worksheet
 - 1.3.3 Change worksheet order
 - 1.3.4 Modify page setup
 - 1.3.5 Insert and delete columns or rows
 - 1.3.6 Change workbook themes
 - 1.3.7 Adjust row height and column width
 - 1.3.8 Insert headers and footers
- 1.4 Customize Options and Views for Worksheets and Workbooks**
 - 1.4.1 Hide or unhide worksheets
 - 1.4.2 Hide or unhide columns and rows
 - 1.4.3 Customize the Quick Access toolbar
 - 1.4.4 Change workbook views
 - 1.4.5 Change window views
 - 1.4.6 Modify document properties
 - 1.4.7 Change magnification by using zoom tools
 - 1.4.8 Display formulas

Microsoft Office Specialist certification is the only official Microsoft-recognized certification for Microsoft Office globally.

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Create and Manage Worksheets and Workbooks

- 1.5 Configure Worksheets and Workbooks for Distribution**
 - 1.5.1 Set a print area
 - 1.5.2 Save workbooks in alternative file formats
 - 1.5.3 Print all or part of a workbook
 - 1.5.4 Set print scaling
 - 1.5.5 Display repeating row and column titles on multipage worksheets
 - 1.5.6 Inspect a workbook for hidden properties or personal information
 - 1.5.7 Inspect a workbook for accessibility issues
 - 1.5.8 Inspect a workbook for compatibility issues

Manage Data Cells and Ranges

- 2.1 Insert Data in Cells and Ranges**
 - 2.1.1 Replace data
 - 2.1.2 Cut, copy, or paste data
 - 2.1.3 Paste data by using special paste options
 - 2.1.4 Fill cells by using Auto Fill
 - 2.1.5 Insert and delete cells
- 2.2 Format Cells and Ranges**
 - 2.2.1 Merge cells
 - 2.2.2 Modify cell alignment and indentation
 - 2.2.3 Format cells by using Format Painter
 - 2.2.4 Wrap text within cells
 - 2.2.5 Apply number formats
 - 2.2.6 Apply cell formats
 - 2.2.7 Apply cell styles
- 2.3 Summarize and Organize Data**
 - 2.3.1 Insert sparklines
 - 2.3.2 Outline data
 - 2.3.3 Insert subtotals
 - 2.3.4 Apply conditional formatting

Create Tables

- 3.1 Create and Manage Tables**
 - 3.1.1 Create an Excel table from a cell range
 - 3.1.2 Convert a table to a cell range
 - 3.1.3 Add or remove table rows and columns
- 3.2 Manage Table Styles and Options**
 - 3.2.1 Apply styles to tables
 - 3.2.2 Configure table style options
 - 3.2.3 Insert total rows
- 3.3 Filter and Sort a Table**
 - 3.3.1 Filter records
 - 3.3.2 Sort data by multiple columns
 - 3.3.3 Change sort order
 - 3.3.4 Remove duplicate records

Perform Operations with Formulas and Functions

- 4.1 Summarize Data by using Functions**
 - 4.1.1 Insert references
 - 4.1.2 Perform calculations by using the SUM function
 - 4.1.3 Perform calculations by using MIN and MAX functions
 - 4.1.4 Perform calculations by using the COUNT function
 - 4.1.5 Perform calculations by using the AVERAGE function

Perform Operations with Formulas and Functions

- 4.2 Perform Conditional Operations by using Functions**
 - 4.2.1 Perform logical operations by using the IF function
 - 4.2.2 Perform logical operations by using the SUMIF function
 - 4.2.3 Perform logical operations by using the AVERAGEIF function
 - 4.2.4 Perform statistical operations by using the COUNTIF function
- 4.3 Format and Modify Text by using Functions**
 - 4.3.1 Format text by using RIGHT, LEFT, and MID functions
 - 4.3.2 Format text by using UPPER, LOWER, and PROPER functions
 - 4.3.3 Format text by using the CONCATENATE function

Create Charts and Objects

- 5.1 Create Charts**
 - 5.1.1 Create a new chart
 - 5.1.2 Add additional data series
 - 5.1.3 Switch between rows and columns in source data
 - 5.1.4 Analyze data by using Quick Analysis
- 5.2 Format Charts**
 - 5.2.1 Resize charts
 - 5.2.2 Add and modify chart elements
 - 5.2.3 Apply chart layouts and styles
 - 5.2.4 Move charts to a chart sheet
- 5.3 Insert and Format Objects**
 - 5.3.1 Insert text boxes and shapes
 - 5.3.2 Insert images
 - 5.3.3 Modify object properties
 - 5.3.4 Add alternative text to objects for accessibility

MOS Excel 2013

Objective Domain

1.0 Create and Manage Worksheets and Workbooks

1.1 Create Worksheets and Workbooks

This objective may include but is not limited to: creating new blank workbooks, creating new workbooks using templates, importing files, opening non-native files directly in Excel, adding worksheets to existing workbooks, copying and moving worksheets

1.2 Navigate through Worksheets and Workbooks

This objective may include but is not limited to: searching for data within a workbook, inserting hyperlinks, changing worksheet order, using Go To, using Name Box

1.3 Format Worksheets and Workbooks

This objective may include but is not limited to: changing worksheet tab color, modifying page setup, inserting and deleting columns and rows, changing workbook themes, adjusting row height and column width, inserting watermarks, inserting headers and footers, setting data validation

1.4 Customize Options and Views for Worksheets and Workbooks

This objective may include but is not limited to: hiding worksheets, hiding columns and rows, customizing the Quick Access toolbar, customizing the Ribbon, managing macro security, changing workbook views, recording simple macros, adding values to workbook properties, using zoom, displaying formulas, freezing panes, assigning shortcut keys, splitting the window

1.5 Configure Worksheets and Workbooks to Print or Save

This objective may include but is not limited to: setting a print area, saving workbooks in alternate file formats, printing individual worksheets, setting print scaling, repeating headers and footers, maintaining backward compatibility, configuring workbooks to print, saving files to remote locations

2.0 Create Cells and Ranges

2.1 Insert Data in Cells and Ranges

This objective may include but is not limited to: appending data to worksheets, finding and replacing data, copying and pasting data, using AutoFill tool, expanding data across columns, inserting and deleting cells

2.2 Format Cells and Ranges

This objective may include but is not limited to: merging cells, modifying cell alignment and indentation, changing font and font styles, using Format Painter, wrapping text within cells, applying Number formats, applying highlighting, applying cell styles, changing text to WordArt

2.3 Order and Group Cells and Ranges

This objective may include but is not limited to: applying conditional formatting, inserting sparklines, transposing columns and rows, creating named ranges, creating outlines, collapsing groups of data in outlines, inserting subtotals

3.0 Create Tables

3.1 Create a Table

This objective may include but is not limited to: moving between tables and ranges, adding and removing cells within tables, defining titles

3.2 Modify a Table

This objective may include but is not limited to: applying styles to tables, banding rows and columns, inserting total rows, removing styles from tables

3.3 Filter and Sort a Table

This objective may include but is not limited to: filtering records, sorting data on multiple columns, changing sort order, removing duplicates

4.0 Apply Formulas and Functions

4.1 Utilize Cell Ranges and References in Formulas and Functions

This objective may include but is not limited to: utilizing references (relative, mixed, absolute), defining order of operations, referencing cell ranges in formulas

4.2 Summarize Data with Functions

This objective may include but is not limited to: utilizing the SUM function, utilizing the MIN and MAX functions, utilizing the COUNT function, utilizing the AVERAGE function

4.3 Utilize Conditional Logic in Functions

This objective may include but is not limited to: utilizing the SUMIF function, utilizing the AVERAGEIF function, utilizing the COUNTIF function

4.4 Format and Modify Text with Functions

This objective may include but is not limited to: utilizing the RIGHT, LEFT and MID functions, utilizing the TRIM function, utilizing the UPPER and LOWER functions, utilizing the CONCATENATE function

Create Charts and Objects

5.1 Create a Chart

This objective may include but is not limited to: creating charts and graphs, adding additional data series, switching between rows and columns in source data, using Quick Analysis

5.2 Format a Chart

This objective may include but is not limited to: adding legends, resizing charts and graphs, modifying chart and graph parameters, applying chart layouts and styles, positioning charts and graphs

5.3 Insert and Format an Object

This objective may include but is not limited to: inserting text boxes, inserting SmartArt, inserting images, adding borders to objects, adding styles and effects to objects, changing object colors, modifying object properties, positioning objects

Excel 2010 Core Items

Audience Profile

The Core-level Microsoft Office Excel 2010 User should be able to navigate Microsoft Office Excel 2010 software at the feature and functionality level. They should be familiar with and know how to use at least 80% of the features and capabilities of Microsoft Office Excel 2010. The core-level user should be able to use Microsoft Office Excel 2010 to create and edit professional-looking spreadsheets for a variety of purposes and situations. Users would include people from a wide variety of job roles from almost all areas of professional, student, and personal life. Some of the roles users might take on include, but are not limited to:

- Accountants
- Clerical, Office professionals
- Consultants
- Executives/Managers
- Help desk personnel
- Instructors/Trainers
- Program/Project Managers
- Sales
- Students
- Other members of the general population

Tasks that might be undertaken or work products created by members of the Microsoft Excel 2010 Core-level User Target Audience might include, but would not be limited to:

- Case studies
- Charting
- Classroom instructional materials
- Create analytical, financial, etc. reports
- Data collaboration
- Data entry
- Data formatting
- Data manipulation
- Family budget
- Format numerical (financial, statistical, etc.) reports
- Forms
- Graphing
- Instructional development
- Investor info and analyses
- Process data
- Recipes
- Reporting
- Studies
- Technical support
- Tracking
- Trending

Objective Domain

1—Managing the Worksheet Environment

- 1.1—Navigate through a worksheet
- 1.2—Print a worksheet or workbook
- 1.3—Personalize environment by using Backstage

2—Creating Cell Data

- 2.1—Construct cell data
- 2.2—Apply AutoFill
- 2.3—Apply and manipulate hyperlinks

3—Formatting Cells and Worksheets

- 3.1—Apply and modify cell formats
- 3.2—Merge or split cells
- 3.3—Create row and column titles
- 3.4—Hide and unhide rows and columns
- 3.5—Manipulate Page Setup options for worksheets
- 3.6—Create and apply cell styles

4—Managing Worksheets and Workbooks

- 4.1—Create and format worksheets
- 4.2—Manipulate window views
- 4.3—Manipulate workbook views

5—Applying Formulas and Functions

5.1—Create formulas

5.2—Enforce precedence

5.3—Apply cell references in formulas

5.4—Apply conditional logic in a formula (<,>=)

5.5—Apply named ranges in formulas

5.6—Apply cell ranges in formulas

6—Presenting Data Visually

6.1—Create charts based on worksheet data

6.2—Apply and manipulate illustrations

6.3—Create and modify images by using the Image Editor

6.4—Apply Sparklines

7—Sharing worksheet data with other users

7.1—Share spreadsheets by using Backstage

7.2—Manage comments

8—Analyzing and Organizing Data

8.1—Filter data

8.2—Sort data

8.3—Apply conditional formatting