MICROSOFT EXCEL 2010 ADVANCED (TXL10AD)
Assessment Questions

Assessment questions provide an opportunity to review concepts covered in a chapter in order to ensure it is clearly understood. Sometimes in learning, when a person reads, sees or hears content, they believe they understand it and if asked about the information or skill they can repeat it. The human brain is tricky though and being able to repeat something does not necessarily mean it is understood much less that the information will be able to be integrated into the virtually limitless number of ways we may encounter a need for it in the real world. The result of effective learning is the ability to truly comprehend concepts and skills and then be able to apply that knowledge to any variety of situations when appropriate.

To assist in optimizing your learning experience, the assessment questions attempt to review the main objectives of a lesson by offering options from which you can hopefully make justified choices through reasoned responses. They may be presented in a variety of ways including multiple choice, short answer, fill in the blank, true/false, ordering, labeling and matching questions. By completing the assessment questions, you will improve comprehension and retention so you have additional tools to assist you in addressing tasks in your work or personal life.

Chapter 1: Advanced Calculations

1. What can be used as an argument in an Excel function?

   A. Constants (types in or hard-coded values)

   B. Cell/range references

   C. Names

   D. Other functions

   E. Either B or C

   F. All of the above

Answer: F. Technically, an argument in an Excel function could be a hard-coded or typed in value, a reference to a cell or range of cells including a named cell or range and another function. If following the Excel Commandments, you would not be hard-coding values, but Excel allows them, it's just not a best practice.

2. What method(s) are available to assist you in selecting and filling out an Excel function? (Check all that apply)

   A. Function AutoComplete

   B. Function library

   C. Insert Function option from the Formulas tab

   D. Insert Function button from the Formula Bar

   E. Name box drop-down after typing an equals sign

Answer: All of these are tools that are available to help select and fill out functions in Excel. Together, they allow for any variety of methods including selecting options from lists to typing directly into the cell, whichever best meets the needs of the user.

3. What category of function would you use to have Excel return the description and price of an item from an inventory list for which you know the item's SKU number?

   A. Financial

   B. Logical

   C. Lookup & Reference

   D. Math & Trig

Answer: B. The best function for this scenario would be found in the Lookup & Reference category. Most likely, it would be VLookup which allows you to know one piece of information (the SKU number) and go to another location (the inventory list), find the matching number (the SKU number) and return any variety of related information (the description and price).

4. True/False: In order for a financial function like PMT to return an accurate answer, the arguments like rate, nper and type of payment you are looking for must be in the same terms such as annual or monthly.

Answer: True. Often interest rates are expressed in annular terms while the term of the loan (nper) is often in years. Therefore the interest rate would need to be divided by 12 and the nper multiplied by 12 in order to get a monthly payment. For financial functions, this is one of the most important things to check in order to ensure all of the arguments are in the same terms.

5. The "sticking together" of cell values with static text and punctuation in order to create new combined values is known as _____.

Answer: Concatenation. Concatenation is the process of sticking together cell values with static or hard-coded text and punctuation in order to create a new entry. This is commonly used to create city, state and zip code with the proper spacing for a label or to create a cell that contains a person's last name followed by a comma and a space and then their first name.

Conversely, other text functions can be used to separate entries, for example showing the specified number of characters from the start of a cell or the last four digits from a phone number. Text functions are very powerful tools.

6. Which function returns the current computer date and time?

A. Date

B. Now

C. Time

D. Today

Answer: B. The Now function returns the computer's current date and time. The Today function returns only the date but not the time. The Date and Time functions both return a serial number, one for a given date and the other for a designated time respectively. Although the Now function returns both the date and time, the cell can be formatted to only show one or the other.

Chapter 2: Subtotals & Outlines

1. What is the first step in creating subtotals using the Subtotals feature in Excel?

   A. Clear all formatting

   B. Format the data as a table

   C. Outline the data

   D. Sort by the changing field

Answer: D. The first step before the Subtotals option is actually selected is to sort the data by the changing field. Each time this field changes from one value to another, Excel inserts a subtotal calculation. Subtotals cannot be inserted when data is formatted as a table. If it is formatted as a table, the Subtotals feature will be disabled. An outline (grouping) will be created automatically as part of the subtotals process. Any existing formatting applied to the data is irrelevant to the subtotals process.

2. True/False: Outlines (grouping) can be manipulated once subtotals are in place but cannot be created without subtotals.

Answer: False. Outlines are created as part of the Subtotals process but outlines can also be manually configured without using Subtotals. The feature is available from the Outline group on the Data tab and might be implemented without subtotals to allow rows or columns to be expanded and collapsed in order to easily show/hide data.

3. True/False: Multiple subtotal calculations based on more than one field can be added to the same data at the same time.

Answer: True. A single function can be applied to one or more fields in one step. After the initial subtotals are in place, the Subtotal feature can be run again and additional functions can be added for the same or different fields, with or without removing the initial subtotal calculations. The changing or sort field cannot change while subtotals are in place and only one function can be applied at a time.

4. How do you save a file to the older 97-2003 file format?

A. Convert

B. Open in older software version

C. Save As

D. Share

Answer: C. Don't make this harder than it has to be! ☺ To save a file into a different format, including the older 97-2003 format, simply click Save As from the Backstage view and be sure to set the file type to the 97-2003 format before designating the file name and/or save location.

5. True/False: In general, there are few considerations when saving a file to the older 97-2003 file format for a person viewing the file. Most issues arise from losing functionality. For example, content created with "new" features will appear or look the way it did in the new version but it will lose its interactivity or functionality.

Answer: True. A majority of the time, the difference if a file has been created in the newer format and is being saved to the older format will simply be the interactivity or functionality of new features like SmartArt. Most of the time, they will appear the same, which is often the most important part when sharing files with others who will not be editing them but an obvious concern is intending to collaborate with others in file editing.

Chapter 3: PivotTables©

1. What are the benefits of a PivotTable?

   A. Summarizes data

   B. Compacts data

   C. Allows quick, easy summary calculations

   D. Is interactive (can be sorted and filtered)

   E. All of the above

Answer: E. All of the above. PivotTables provide many benefits. Primarily, they are intended to summarize and compact data, allowing it to be seen on two axes and allowing for quick summary calculations. They are also interactive, meaning the data can be sorted and filtered very quickly using in-cell drop-downs similar to tables. The entire PivotTable can be configured very quickly by dragging and dropping fields to add, remove, and rearrange them.

2. True/False: In order for a PivotTable to be generated, the source data should have at least two columns (fields), labeled with text along the top row and at least two records or rows of data immediately below the field labels.

Answer: True. PivotTables need to "pivot" off of fields and record values. Therefore this minimum structure is required. Naturally, the more fields you have and the more records you have, the more beneficial the PivotTable will be in summarizing that complex data. In addition, you should have data that is numeric in order to fully utilize the PivotTable functions. Otherwise, you are basically limited to counting text fields.

3. From which Ribbon tab can you create a PivotTable?

   A. Home

   B. Insert

   C. Formulas

   D. Data

Answer: B. Although PivotTables utilize formulas and are a powerful data tool, they are actually created from the Tables group on the Insert tab. Once created, they can be manipulated using the PivotTable Tools set of two contextual tabs, the Filed List or by clicking, dragging and right-clicking on the PivotTable itself.

4. What new feature does Excel 2010 provide to make filtering PivotTables faster, easier and more intuitive?

A. OLAP Tools

B. PivotCharts

C. Slicers

D. Sparklines

Answer: C. Slicers are new to Excel 2010. They allow you to choose one or more fields for which to show a slicer window. From that window, you can quickly select one or more field values by which to filter the PivotTable. Slicers are available from the Sort & Filter group on the PivotTable Tools contextual Options tab that is available when the PivotTable is selected.

5. What PivotTable feature would you use to allow double-clicking of a PivotTable calculated field to display a new worksheet showing all of the records that were inputs for that particular calculation?

A. PivotTable Options

B. PivotChart

C. Refresh

D. Value Field Settings

Answer: A. The PivotTable Options provide several configurable features of each PivotTable you have in any given workbook. The Data tab in the PivotTable Options dialog has a checkmark to Enable Show Details. When enabled, double-clicking any PivotTable calculated field generates a new worksheet showing all of the records that went into that particular calculated value. This worksheet is not linked to the source data so it should not be used to make changes to the source data.

Chapter 4: Adapting Charts for Complex Data

1. What Excel chart feature would be most helpful if you wanted to show two disparate (very different) values on the same chart?

   A. Bubble Chart

   B. Error bars

   C. Projection

   D. Secondary axis

   E. Trendline

Answer: D. A secondary axis is useful when you need to show two different values on the same chart. With only a single axis, the lower number will appear to "flat line" and be indiscernible or the axis scale will need to be so large that it will be impractical. Instead, a secondary axis can be added with its own scale, thus allowing the bars, columns, lines etc. to be more useful. This might be used in showing the number of home sales along with the total market value of those sales or a blood sugar level along with units of insulin taken. Any data in which the values are very different from one another.

2. When showing survey result where the results are known to statistically be plus/minus 3% from the data shown, what Excel chart feature would you use to show this possible variance?

   A. Error bars

   B. Projection

   C. Secondary axis

   D. Trendline

Answer: A. Error bars show potential error amounts such as survey results or experimental results graphically on the chart, relative to each data point or marker. Using them would show, for example that a value of 10 could be as low as 7 or as high as 13. Error bars are enabled from the Analysis group on the Chart Tools Layout contextual tab.

3. True/False: There are no right or wrong chart types, just ones that illustrate the message you are trying to convey about your data better than others.

Answer: True. Although some chart types are not conducive to certain data configurations, for the most part, different chart types simply illustrate or emphasize certain aspects of the data better. For example, data that consists of 5 rows (one for each service sold) and four columns (one for each quarter) might be well suited for a pie chart if you are trying to show how these items made up total sales over the four quarters. However, if more detail were wanted, a doughnut chart would better illustrate the data using a ring for each quarter with each ring being composed of the five services or vice

versa. If unsure, it is best to try different chart types until the one is found that best communicated your message.

Chapter 5: Advanced Data Tools

1. What type of data can Excel import? (Check all that apply)

   A. Text

   B. Access

   C. Internet

   D. XML

Answer: Excel can import all of these types of data. Excel can also connect to SharePoint data sources, SQL databases and more. Basically, if data can be exported from a source or is its own source, Excel will probably be able to import it. The more "Excel-like" the data is, the easier it is to import. For example, importing from an Access database requires very little input because Access data is very similar to a spreadsheet. Importing a text file, on the other hand, requires more input to determine what should be imported, how it is configured etc. Tab-delimited data is easiest and cleanest to import.

2. If you want to include a clickable link to provide supporting details about something on your spreadsheet, you could add a _____ which could take a user to another file, a web address, a different place in the same workbook or even a person's e-mail address.

Answer: Hyperlink. Excel, like all of the Office applications, has the ability to create and maintain hyperlinks. These links can be either text or clickable objects like an image or shape. Hyperlinks can take a person to another file, a web page, a place in the existing file, or launch an e-mail program and address the message to the designated e-mail address. Hyperlinks can provide easy access to additional or supporting information and are added from the Insert tab.

3. If you received a worksheet that had a list of contact names all in a single cell, which Excel feature might you use to split those names out into their own columns?

   A. Concatenation

   B. Data Validation

   C. Text to Columns

   D. Any of the above

Answer: C. Excel's Text to Columns feature separates single cells into multiple columns of data. To do so, you designate the delimiter or the character that denotes where the columns should break. For example with a list of names, the space would be the delimiter. Wherever Excel identifies a space, it would separate what follows into the next column. This is a much simpler method than using several text functions to identify the location of

the space then separate the characters to the left and right of the space into separate columns.

4. From which tab would you manage connected data such as a linked database, either managing the connection itself or refreshing the data?

   A. Home

   B. Formulas

   C. Data

   D. Review

   E. Developer

Answer: C. The Data tab contains the Connections group where the Connections, Edit Links and Refresh options are found. These can be used to manage links as well as refresh the linked data. The Get External Data group is also found here which can be used to import data. It is important to differentiate between imported and linked data and recognize the differences between the two.

5. Which feature would you use in order to ensure only one of five possible department designations were entered for a specific field?

   A. Conditional Formatting

   B. Data Consolidation

   C. Data Validation

   D. Watch

Answer: C. Data validation allows you to set rules for what type of data is acceptable in a cell or range of cells. This can include only allowing whole numbers, decimal numbers, text, dates and more. You can also determine if you want to offer a message instructing people how to enter data into the cell when the cell is selected and/or providing an error message if they violate the rule. You can also determine if an invalid entry will be allowed or if a user will be required to change it. Data validation is part of the Data Tools group on the Data tab.

6. True/False: By default, all cells on a worksheet are locked but the worksheet must be protected before the locking takes effect.

Answer: True. All cells on all worksheets are designated as locked by default. They can be designated as unlocked through the Protection tab of the Format Cells dialog box or by enabling/disabling features through the Allow Users to Edit Ranges option or the Protect Sheet option in the Changes group on the Review tab. The locked property is not activated until the worksheet is protected, however. This is done from the Changes group of the Review tab. It is this combination that works to prevent or allow users to edit cell content. Other options can also be applied from the Protect Sheet option.

Chapter 6: Auditing Calculated Values

1. What Excel option would you use if you wanted to visually see what values a calculation relied upon for its own result?

   A. Evaluate Formula

   B. Trace Precedents

   C. Trace Dependents

   D. Show Formulas

Answer: B. The Trace Precedents features would show direst inputs into a cell's calculated value. If clicked a second time, it will show the indirect inputs for the value (by showing the inputs for the inputs). Trace Dependents would show the values that relied upon the selected cell's value (the opposite of what we want) and evaluating the formula would actually show us step-by-step how the calculation is derived. Showing the formula would enable us to see the actual Excel calculation but we would not consider this a visual method of seeing the inputs.

2. What symbol precedes all error indicators in Excel?

   A. At symbol (@)

   B. Equals sign (=)

   C. Exclamation mark (!)

   D. Pound symbol (#)

Answer: D. The pound symbol or hash mark precedes all error indicators in Excel. Some of the errors indicators include #DIV/0!, #N/A, #NAME?, #NULL!, #NUM!, #REF!, and #VALUE!

3. True/False: Errors can simply be ignored in Excel.

Answer: True. When an error is displayed, you have several options for dealing with it. Using the SmartTag or the Error Checking tools from the Formula Auditing group on the Formulas tab on Ribbon, you can make some sort of change (for example, change a number stored as text to a number format), to get help on the error, to edit the cell in the formula bar or to ignore the error. While you certainly want to be sure you understand what the error is and how it may affect other parts of your workbook, you can also choose to simply ignore the error. This might be acceptable if you are storing invoices with leading zeros as text, for example. When ignored, the SmartTag and in-cell indicator disappear but the error code may still appear. To remove the error code, you'd need to use an IfError function or some other method to designate an alternative display.

4. What does watching cells in Excel allow you to do? (Short answer)

_____

Answer: The Watch allows you to display a watch window that shows one or more cells and their values while working in different areas of a workbook. You could, for example, keep an eye on your overall profit that is stored on Sheet1 while working with sales and expense figures on sheets 2 and 3 without having to repeatedly go back to Sheet1 or split screens, show multiple windows etc.

5. True/False: Evaluating a formula allows you to have Excel see if a worksheet can be better arranged or formatted.

Answer: False. Excel's Evaluate Formula methodically steps through each mathematical step in the execution of a formula, showing the results of each step. This can help better understand how a complex calculation is being executed and even find where errors are occurring rather than just being presented with a result or an error.

Chapter 7: Performing a What-If Analysis

1. What tool would you use to find the exact price of a car you could buy if you knew what interest rate you could get on a 5-year loan and what monthly payment you could afford?

   A. AutoCalculate

   B. Goal Seek

   C. Scenarios

   D. Solver

Answer: B. Goal Seek is a simple but useful tool that allows you to work with the result of a calculation and find one of the inputs by changing another input. In this case, you know what you want to pay (the result of a PMT function, most likely) and you also know what your interest rate and term of the load are. You therefore need to find what the highest price of the car can be. That is the value to be determines. Goal Seek can do this quickly.

2. True/False: You can store multiple scenarios in any given worksheet but you can only have one changing cell per scenario.

Answer: False. You can store multiple scenarios per worksheet but you can also have more than one changing cell per scenario. In fact, you will often have multiple changing cells, which is part of the benefit of scenarios…to see how changing a variety of inputs effects results. If you only changed one value, it would most likely be obvious what the results would be. It is this multi-variable capability that makes scenarios so powerful.

3. The What-If tools in Excel are found on what Ribbon tab?

   A. Formulas

   B. Data

   C. Developer

   D. They are not found on the Ribbon by default, but can be added as a group

Answer: B. The What-If tools (Scenarios, Goal Seek and Data Tables) are all found under the What-If Analysis option of the Data Tools group on the Data tab.

Chapter 8: Macros, VBA & Security

1. In what language does Excel 2010 record macros?

   A. Basic

   B. .NET

   C. VB

   D. VBA

   E. XML

Answer: D. When macros are recorded in Excel 2010, the actions you perform using the keyboard and mouse are converted to code. That code is in the Visual Basic for Applications (VBA) language. While you do not need to know how to write code from scratch, being able to launch the VBA editor allows you to make small modifications to the actions you recorded such as correcting a typo or changing a font size, without having to re-record the entire macro.

2. True/False: The default cell reference when recording a macro is absolute referencing.

Answer: True. Unlike the work we normally do in Excel, which uses relative referencing by default, macros default to absolute referencing until that option is changed. This can be changed by clicking the Use Relative References option from the Code group on the Developer tab. This option is a toggle and either turns relative referencing on or off.

3. If you wanted to store a macro so both you and your co-workers could access it on your computers as well as reuse it in a variety of Excel files, where would you store it?

   A. New Workbook

   B. Personal Macro Workbook

   C. This Workbook

   D. All of the above will work

Answer: A. In order for a variety of users on different computers to be able to access the macro for a variety of files, the macro needs to be stored in a New Workbook. If it is stored in This Workbook, it will only be available to that specific file although anyone accessing that file can use it. If it is stored in the Personal Macro Workbook, it will be available for all files on that particular computer but not all users or all computers. Therefore, a new workbook that can then be stored on a network location where everyone can access it, and that any Excel files can be linked to it, is the best option for this type of access.

4. Once recorded, in which way(s) can you run a macro? (Check all that apply)

   A. Run it from the Macros option on the Developer tab

   B. Use a keyboard shortcut

   C. Add a button to the QAT

   D. Add an option to the Ribbon

   E. Create a clickable shape on the worksheet

Answer: All of these are methods that can be used to run or execute a macro after it has been recorded. Naturally, some of them depend on extra configuration, beyond just recording the macro itself. For example, you must designate a keyboard shortcut when initially naming the macro and before recording begins in order to utilize that feature. Likewise, you'd need to configure the QAT, Ribbon or a clickable shape or image for those options as well, but there are many ways to access a macro other than having to know how to use the Developer tab.

5. True/False: In VBA, macros are recorded and the code stored in a module as a sub routine which can be viewed in the VBA editor after recording.

Answer: True. When going through the steps of recording a macro, Excel is creating a VBA module and related sub routine that holds all of the macro actions in VBA code behind the scenes. If multiple macros are created during the same session, they will be added as individual sub routines within the same module. If the workbook is closed and reopened, then subsequent macros will be recorded in a different module, one for each "session" in which macros were recorded.