MULTIPLE CHOICE

1. A worksheet’s row-and-column structure can be used to organize and store a _____.
   a. table c. function
   b. formula d. cell
   ANS: A PTS: 1 REF: EX 298

2. Each row of an Excel worksheet used to create a table can store a record, and each column can store a(n) _____.
   a. record c. field
   b. entity d. element
   ANS: C PTS: 1 REF: EX 298

3. In a table, a column that contains formulas or functions is called a calculated _____.
   a. column c. total
   b. row d. cell
   ANS: A PTS: 1 REF: EX 298

4. In a table, or database, the data related to each person or item is called a _____.
   a. formula c. calculation
   b. field d. record
   ANS: D PTS: 1 REF: EX 298

5. A _____ should be formatted so that the records are easily distinguished.
   a. worksheet c. formula
   b. table d. field
   ANS: B PTS: 1 REF: EX 301

6. Even though Excel is not a true _____ management system like Access, it does give you many of the same basic capabilities.
   a. document c. worksheet
   b. personal information d. database
   ANS: D PTS: 1 REF: EX 302

7. Which of the following is the path to the Format as Table button?
   a. (Home tab | Tables group) c. (Styles tab | Tables group)
   b. (Page Layout tab | Convert group) d. (Home tab | Styles group)
   ANS: D PTS: 1 REF: EX 307
8. _____ causes adjacent rows to have different formatting so that each row in the table is distinguished from surrounding rows.
   a. Row coloring  
   b. Row shielding  
   c. Row banding  
   d. Row separating  
   ANS: C  PTS: 1  REF: EX 309

9. A _____ column is a column in a table in which each row uses a common formula that references other fields in the table.
   a. calculated  
   b. formatted  
   c. banded  
   d. sized  
   ANS: A  PTS: 1  REF: EX 311

10. To change an active table back to a normal range of cells, right-click the table, point to Table on the shortcut menu, and then click _____ on the Table submenu.
    a. Change to Range  
    b. Revert to Range  
    c. Convert to Range  
    d. Replace with Range  
    ANS: C  PTS: 1  REF: EX 312

11. The _____ function is used when the table direction is horizontal.
    a. VLOOKUP  
    b. HLOOKUP  
    c. MLOOKUP  
    d. ZLOOKUP  
    ANS: B  PTS: 1  REF: EX 312

12. The _____ function is used when a table direction is vertical.
    a. HLOOKUP  
    b. ZLOOKUP  
    c. VLOOKUP  
    d. MLOOKUP  
    ANS: C  PTS: 1  REF: EX 312

13. Why is the VLOOKUP function used more often than other lookup functions?
    a. because it has more powerful calculations  
    b. because most tables are vertical  
    c. because it is easier to implement  
    d. because it is the default lookup function  
    ANS: B  PTS: 1  REF: EX 312

14. A value being looked up outside the range of the table causes the VLOOKUP function to return the _____ error message.
    a. #N/A  
    b. #DIV/0!  
    c. #NULL!  
    d. #VALUE!  
    ANS: A  PTS: 1  REF: EX 313

15. The VLOOKUP function searches the far-left column of the _____.
    a. row  
    b. table column  
    c. worksheet  
    d. table array  
    ANS: D  PTS: 1  REF: EX 313
16. For the VLOOKUP function to work correctly, the table _____ must be in ascending sequence.
   a. array  
   b. arguments  
   c. rows  
   d. columns
   ANS: B  PTS: 1  REF: EX 313

17. The table_array contains what are called table _____.
   a. text  
   b. arguments  
   c. functions  
   d. dollar signs
   ANS: B  PTS: 1  REF: EX 313

18. The general form of the VLOOKUP function is _____.
   a. =VLOOKUP(table_array, col_index_num)  
   b. =VLOOKUP(lookup_value, table_array, col_index_num)  
   c. =VLOOKUP(lookup_value, table_array, col_index_num)  
   d. =VLOOKUP(lookup_value)
   ANS: C  PTS: 1  REF: EX 313

19. You can hide columns in a table by pressing the _____ keyboard shortcut keys.
   a. CTRL+0  
   b. CTRL+H  
   c. CTRL+Z  
   d. CTRL+Y
   ANS: A  PTS: 1  REF: EX 314

20. If columns contain sensitive information, such as salary information, you can _____ the columns.
   a. disguise with # symbols  
   b. change the color of  
   c. hide  
   d. delete
   ANS: C  PTS: 1  REF: EX 314

21. Which of the following is the path to the Lookup & Reference button?
   a. (Data tab | Function Library group)  
   b. (Formulas tab | Function Library group)  
   c. (Function tab | Lookup & Reference group)  
   d. (Formulas tab | Formulas group)
   ANS: B  PTS: 1  REF: EX 316

22. _____ formatting allows you to create rules that change the formatting of a cell or range of cells based on the value of a particular cell.
   a. Quick  
   b. Conditional  
   c. Styles  
   d. Cell
   ANS: B  PTS: 1  REF: EX 316

23. Conditional formatting allows you to create _____ that change the formatting of a cell or range of cells based on the value of a cell.
   a. rules  
   b. data  
   c. comments  
   d. objects
   ANS: A  PTS: 1  REF: EX 316
24. Which of the following is a type of conditional formatting?
   a. Highlight Cell Rules
   b. Icon Sets
   c. Data Bars
   d. All of the above

   ANS: D   PTS: 1   REF: EX 316

25. The Conditional Formatting _____ dialog box displays all of the rules for the current selection or for the entire workbook.
   a. Name Wizard
   b. Rules Wizard
   c. Name Manager
   d. Rules Manager

   ANS: D   PTS: 1   REF: EX 316

26. You can insert a _____ at the bottom of a table, as shown in the accompanying figure.
   a. bottom row
   b. total column
   c. total row
   d. none of the above

   ANS: C   PTS: 1   REF: EX 319

27. Which of the following is the path to the Total Row check box?
   a. (Table Tools Format tab | Table Style Options group)
   b. (Table Tools Layout tab | Table Options group)
   c. (Table Tools Design tab | Table Style Options group)
   d. None of the above

   ANS: C   PTS: 1   REF: EX 320
28. Data is in _____ sequence if it is in order from lowest to highest.
   a. sorting  
   b. ascending  
   c. descending  
   d. reporting

   ANS: B  PTS: 1  REF: EX 322

29. The field or fields selected for sorting records are called ____ keys.
   a. label  
   b. record  
   c. field  
   d. sort

   ANS: D  PTS: 1  REF: EX 322

30. Which of the following is the path to the Sort & Filter button?
   a. (Home tab | Editing group)  
   b. (Table Tools Design tab | Sorting group)  
   c. (Home tab | Sorting group)  
   d. (Data tab | Editing group)

   ANS: A  PTS: 1  REF: EX 322

31. In the Sort dialog box, shown in the accompanying figure, the _____ is the Sort by field.
   a. minor sort key  
   b. major sort key  
   c. intermediate sort key  
   d. none of the above

   ANS: B  PTS: 1  REF: EX 324
32. When you first create a table, Excel automatically enables _____, as shown in the accompanying figure.
   a. AutoFunction   c. AutoFilter
   b. AutoCalculate   d. AutoFormula
   
   ANS: C   PTS: 1   REF: EX 327

33. The process of a filtering activity based on one or more filter criteria is called a _____.
   a. search   c. sort
   b. query   d. calculation
   
   ANS: B   PTS: 1   REF: EX 327

34. You can display all records in the table after a query hid some of the records by clicking the Filter button on the _____.
   a. (Home tab | Sort group)   c. (Data tab | Sort & Filter group)
   b. (Data tab | Filter group)   d. none of the above
   
   ANS: C   PTS: 1   REF: EX 329

35. The values _____ satisfy a custom filter criteria that displays records in which the Experience field contains a value greater than or equal to 3 and less than or equal to 5.
   a. 1, 2, 3   c. 5, 6, 7
   b. 3, 4, 5   d. none of the above
   
   ANS: B   PTS: 1   REF: EX 330
36. Like the AutoFilter query technique, the _____ command displays a subset of the table.
   a. Advanced Filter  
   b. Advanced Sort  
   c. Advanced Formatting  
   d. Advanced Functions  
   
   ANS: A   
   PTS: 1   
   REF: EX 332

37. _____ records allows you to pull data from a table so that you can analyze or manipulate the data further.
   a. Sorting  
   b. Filtering  
   c. Extracting  
   d. Formatting  
   
   ANS: C   
   PTS: 1   
   REF: EX 333

38. The comparison criteria in the _____ range determine the records that will pass the test when the Advanced Filter dialog box is used.
   a. criteria  
   b. extract  
   c. database  
   d. filter  
   
   ANS: A   
   PTS: 1   
   REF: EX 335

39. Excel includes _____ database functions that allow you to evaluate numeric data in a table.
   a. 4  
   b. 8  
   c. 12  
   d. 16  
   
   ANS: C   
   PTS: 1   
   REF: EX 336

40. The _____ function is useful when you want to add values in a range only if they meet criteria.
   a. COUNTIF  
   b. MATCH  
   c. INDEX  
   d. SUMIF  
   
   ANS: D   
   PTS: 1   
   REF: EX 338

MULTIPLE RESPONSE

Modified Multiple Choice

1. Which of the following are guidelines for creating a table in Excel?
   a. Do not enter more than one table per worksheet  
   b. Place column headings (field names) in the first row of the table  
   c. Maintain at least one blank row between a table and other worksheet entries  
   d. Do not use blank rows or rows with repeating characters to separate the column headings (field names) from the data  
   
   ANS: A, B, C, D   
   PTS: 1   
   REF: EX 303
2. Which of the following are steps to create a table?
   a. Enter the column headings (field names)
   b. Define range as a table using the Format as Table button (Home tab | Styles group)
   c. Format the row immediately below the column headings
   d. Enter records into the table

   ANS: A, B, C, D   PTS: 1   REF: EX 303

3. _____ cause adjacent rows or columns to have different formatting so that each row or column in the table is distinguished from the surrounding rows or columns.
   a. Row banding
   b. Row styles
   c. Column banding
   d. Column styles

   ANS: A, C   PTS: 1   REF: EX 309|EX 320

4. Which of the following functions have the same arguments?
   a. VLOOKUP
   b. HLOOKUP
   c. AVERAGE
   d. IF

   ANS: A, B   PTS: 1   REF: EX 314

5. Which of the following are database functions?
   a. AVERAGE
   b. DAVERAGE
   c. SUM
   d. DSUM

   ANS: B, D   PTS: 1   REF: EX 336|EX 338

TRUE/FALSE

1. A table also is called a record.

   ANS: F   PTS: 1   REF: EX 298

2. Excel is a true database management system.

   ANS: F   PTS: 1   REF: EX 302

3. Excel does not allow you to create forms and reports based on data in a table.

   ANS: F   PTS: 1   REF: EX 302

4. Placing more than one table on the same worksheet is recommended.

   ANS: F   PTS: 1   REF: EX 303

5. A table can have a maximum of 16,384 fields and 1,048,576 records.

   ANS: T   PTS: 1   REF: EX 303
6. You can apply merge and center formatting with the Center button (Home tab | Alignment group).

ANS: F

PTS: 1

REF: EX 304

7. You can format a table by applying a table quick style, as shown in the accompanying figure.

ANS: T

PTS: 1

REF: EX 305
8. Excel automatically creates an empty row in the table, as shown in the accompanying figure, so that you are ready to enter the first record in the table.

ANS: T PTS: 1 REF: EX 306

9. You can modify a table quick style to make a table more readable.

ANS: T PTS: 1 REF: EX 307

10. Pressing the ALT key when a cell in the last column in a table is selected adds the next row to the table.

ANS: F PTS: 1 REF: EX 309

11. When you enter a formula in a field in the first row of a table, Excel creates a calculated column.

ANS: T PTS: 1 REF: EX 311

12. The path to the Percent Style button is (Home tab | Editing group).

ANS: F PTS: 1 REF: EX 312

13. Both the HLOOKUP and VLOOKUP functions look up a value in a table and return a corresponding value from the table to the cell containing the function.

ANS: T PTS: 1 REF: EX 312

14. HLOOKUP uses the same arguments as VLOOKUP.

ANS: T PTS: 1 REF: EX 314

15. The HLOOKUP and VLOOKUP functions can be inserted by clicking the Lookup & Reference button (Functions tab | Formulas Library group).

ANS: F PTS: 1 REF: EX 316
16. The Conditional Formatting Rules Manager dialog box allows you to view and change the order in which the rules are applied to a cell or range.

   ANS: T    PTS: 1    REF: EX 316

17. When a table is active, the Design tab on the Ribbon provides powerful commands that allow you to alter the appearance and contents of a table quickly.

   ANS: T    PTS: 1    REF: EX 318

18. You can click the arrow to the right side of a cell in the total row to display a list of available statistical functions.

   ANS: T    PTS: 1    REF: EX 319

19. Data in descending sequence is sorted from lowest to highest, earlier to most recent, or alphabetically from A to Z.

   ANS: F    PTS: 1    REF: EX 322

20. If the table column you choose to sort contains numeric data, the Sort & Filter menu shows the Sort Smallest to Largest and Sort Largest to Smallest commands.

   ANS: T    PTS: 1    REF: EX 322

21. Excel allows you to sort on a maximum of 400 fields in a single sort operation.

   ANS: F    PTS: 1    REF: EX 324

22. A list of all the values that occur in the selected column appear in the AutoFilter menu.

   ANS: T    PTS: 1    REF: EX 327

23. When you select a second filter criterion in a table, Excel turns off all previously selected filter criterion.

   ANS: F    PTS: 1    REF: EX 328

24. To remove a filter criterion for a single field, select the Select All option from the column heading AutoFilter menu for that field.

   ANS: T    PTS: 1    REF: EX 328

25. In a multiple-field filter operation, the AND and OR options are interchangeable.

   ANS: F    PTS: 1    REF: EX 330
MODIFIED TRUE/FALSE

1. The Sort, Subtotal, and AutoFilter commands are unavailable if the worksheet or workbook is protected.

_________________________
ANS: T  PTS: 1  REF: EX 327

2. Use the OR operator when the custom criteria is continuous over a range of values.

_________________________
ANS: F, AND  PTS: 1  REF: EX 330

3. You can set up a criteria range on the worksheet and use it to manipulate formulas that pass the comparison criteria.

_________________________
ANS: F, records  PTS: 1  REF: EX 331

4. If the criteria range contains a blank row, it means that no comparison criteria have been defined.

_________________________
ANS: T  PTS: 1  REF: EX 335

5. The DAVERAGE function counts the number of numeric entries in a table field that pass a test.

_________________________
ANS: F, DCOUNT  PTS: 1  REF: EX 336
COMPLETION

1. A(n) _________________________ row-and-column structure can be used to organize and store a table.

   ANS: worksheet
   worksheet's

   PTS: 1           REF: EX 298

2. Individual data items that make up a record are called _________________________.

   ANS: fields

   PTS: 1           REF: EX 298

3. Excel includes simple and _________________________ methods for sorting tables.

   ANS: advanced

   PTS: 1           REF: EX 301

4. _________________________ also can be added to a table for averages, sums, and other types of calculations.

   ANS: Totals

   PTS: 1           REF: EX 301

5. A range of blank rows or columns on the side of a list is called a(n) _________________________ of cells.

   ANS: moat

   PTS: 1           REF: EX 303

6. When creating a table, place _________________________ in the first row of the table.

   ANS: column headings
   field names

   PTS: 1           REF: EX 303

7. Each _________________________ in any given table column should have similar data.

   ANS: cell

   PTS: 1           REF: EX 303
8. _________________________ cause(s) adjacent rows to have different formatting.

   ANS: Row banding
   Banded rows

   PTS: 1       REF: EX 309

9. You can unhide hidden columns in a table by pressing the _________________________ keyboard
   shortcut keys.

   ANS: CTRL+SHIFT+RIGHT PARENTHESIS

   PTS: 1       REF: EX 314

10. Excel includes _________________________ types of conditional formats.

    ANS: five

    PTS: 1       REF: EX 316

11. You can sort data in a table by clicking the Sort button in the Sort & Filter group on the
    _________________________ tab.

    ANS: Data

    PTS: 1       REF: EX 322

12. You can return sorted records to their original order by clicking the _________________________
    button on the Quick Access Toolbar.

    ANS: Undo

    PTS: 1       REF: EX 326

13. A check mark in the _________________________ check box on the AutoFilter menu indicates that all
    values for the selected field are displayed in the table.

    ANS: Select All

    PTS: 1       REF: EX 327

14. When you enable _________________________ and records are hidden, Excel displays a filter icon in
    the table column heading arrows used to establish the filter.

    ANS: AutoFilter

    PTS: 1       REF: EX 328
15. The _________________________ command on the AutoFilter menu allows you to enter custom criteria, such as multiple options or ranges of numbers.

ANS: Custom Filter

PTS: 1 REF: EX 329

16. Use the OR operator when the _________________________ is not continuous.

ANS: custom criteria

PTS: 1 REF: EX 330

17. The _________________________ operator means each and every one of the comparison criteria must be true.

ANS: AND

PTS: 1 REF: EX 331

18. The _________________________ operator means only one of the comparison criteria must be true.

ANS: OR

PTS: 1 REF: EX 331

19. When performing an advanced filter operation, the location to where the records are copied is called the _________________________ range.

ANS: extract

PTS: 1 REF: EX 333

20. The _________________________ function will count the number of numeric entries in a table field that pass a test.

ANS: DCOUNT

PTS: 1 REF: EX 336

MATCHING

Identify the letter of the choice that best matches the phrase or definition.

a. SUMIF  f. Custom Filter
b. COUNTIF  g. AutoFilter
c. DCOUNT  h. query
d. extract range  i. sort keys
e. criteria range  j. conditional formatting

1. Allows you to enter custom criteria, such as multiple options or ranges of numbers.
2. Uses specific criteria to add a range of values.
3. Displays all records that meet the criteria as a subset of the table by hiding records that do not pass the test.
4. Uses specific criteria to count a number of items.
5. The location to where records that meet the comparison criteria in the criteria range are copied.
6. The process of filtering activity based on one or more filter criteria.
7. An area of the worksheet that you use to manipulate records that pass the comparison criteria.
8. Allows you to create rules that change the formatting of a cell or range of cells based on the value of a particular cell.
9. Counts the number of numeric entries in a table field that pass a test.
10. The field or fields you select to sort records.

1. ANS: F PTS: 1 REF: EX 329
2. ANS: A PTS: 1 REF: EX 338
3. ANS: G PTS: 1 REF: EX 327
4. ANS: B PTS: 1 REF: EX 338
5. ANS: D PTS: 1 REF: EX 333
6. ANS: H PTS: 1 REF: EX 327
7. ANS: E PTS: 1 REF: EX 331
8. ANS: J PTS: 1 REF: EX 316
9. ANS: C PTS: 1 REF: EX 336
10. ANS: I PTS: 1 REF: EX 322

ESSAY

1. Describe how to create and format a table.

ANS:
A table should be formatted so that the records are easily distinguished. The data in the worksheet should start several rows from the top in order to leave room for the criteria area. Using banded rows (background colors varying between rows) to format the table provides greater readability. Some columns require calculations that can be created by using the table column headings within formulas. In some cases, calculated columns in tables require looking up values outside of the table. Excel’s special lookup functions can be used in such cases. Totals also can be added to the table for averages, sums, and other types of calculations.

One way to create a table in Excel is to follow these four steps: (1) Enter the column headings (field names); (2) Define a range as a table using the Format as Table button (Home tab | Styles group); (3) Format the row immediately below the column headings; and (4) Enter records into the table.

Although Excel does not require a table title to be entered, it is a good practice to include one on the worksheet to show where the table begins. With Excel, you usually enter the table several rows below the first row in the worksheet. These blank rows later can be used as a criteria area to store criteria for use in a query.

PTS: 1 REF: EX 301|EX 303 TOP: Critical Thinking
2. Describe the HLOOKUP and VLOOKUP functions.

ANS:
The two most widely used lookup functions are the HLOOKUP and VLOOKUP. Both functions look up a value in a table and return a corresponding value from the table to the cell containing the function.

The HLOOKUP function is used when the table direction is horizontal, or across the worksheet. The VLOOKUP function is used when a table direction is vertical, or down the worksheet. The VLOOKUP function is by far the most often used because most tables are vertical. The general form of the VLOOKUP function is:

\[=VLOOKUP(lookup\_value, table\_array, col\_index\_num)\]

HLOOKUP uses the same arguments as VLOOKUP, but it searches rows of information instead of columns. HLOOKUP also uses the row_index_num argument instead of the col_index_num argument. When using HLOOKUP, be sure to sort the values in the first row of the table_array in ascending order to find an approximate match. Otherwise, specify FALSE as the range_lookup argument to find an exact match.

PTS: 1 REF: EX 312-EX 314 TOP: Critical Thinking

3. Briefly discuss the AND and OR custom filter operators.

ANS:
The AND operator indicates that both parts of the criteria must be true; the OR operator indicates that only one of the two must be true. Use the AND operator when the custom criteria is continuous over a range of values. Use the OR operator when the custom criteria is not continuous.

PTS: 1 REF: EX 330 TOP: Critical Thinking
CASE

Critical Thinking Questions

Case 5-1

Jane has a worksheet that contains a large amount of data about company products and she would like to manipulate the data in a variety of ways. She stops by your office and asks if you have any suggestions on an efficient way to do this.

1. You tell Jane that if she _____, then she can easily add and delete product records, change the values of fields in records, sort the records in a different order, determine subtotals for numeric fields, display records that meet comparison criteria, and analyze data using database functions.

   a. deletes the range and reenters the data in a table
   b. defines the range as a table
   c. prints the range as a table
   d. converts the table back to a range

ANS: B

PTS: 1   REF: EX 298   TOP: Critical Thinking

2. Next you tell Jane that she can accomplish the task by clicking the _____.

   a. Recreate as Table button (Data tab | Table group)
   b. Convert to Table button (Home tab | Styles group)
   c. Format as Table button (Home tab | Styles group)
   d. Apply Table Formatting button (Layout tab | Styles group)

ANS: C

PTS: 1   REF: EX 305   TOP: Critical Thinking
Critical Thinking Questions

Case 5-2

Dan is manipulating data in a table containing records on computer equipment purchases for the past year. Each record in the table contains the date purchased, the type of computer equipment, the vendor’s name, the cost of the equipment, and the department in which the equipment is installed. The records were originally entered in order by month of purchase. He sends you an e-mail asking how he can rearrange the table’s records to see all the purchases from each vendor in date order within each department. He also wants to know a quick way to get the data back into its original order, whenever necessary.

3. As a quick way to get all the records back into their original order, when necessary, you suggest that before he begins to rearrange the records, Dan should _____.

   a. sort first on the department field and then the date purchased field
   b. create a duplicate worksheet with the records in their original order as a backup before sorting them in a different order
   c. insert a column (field) and use the fill handle to add sequential record numbers in the column; then sort the record numbers in ascending sequence to rearrange the records in their original order whenever necessary
   d. sort first on the computer type field and then on the date purchased field

   ANS: C
   PTS: 1    REF: EX 323    TOP: Critical Thinking

4. To rearrange the data, you suggest that Dan create a custom sort by setting the _____.

   a. purchase date field as the major sort key, the vendor field as the intermediate sort key, and the department field as the minor sort key
   b. vendor field as the major sort key, the department field as the intermediate sort key, and the purchase date field as the minor sort key
   c. purchase date field as the major sort key, the department field as the intermediate sort key, and the vendor as the minor sort key
   d. department field as the major sort key, the vendor field as the intermediate sort key, and the purchase date field as the minor sort key

   ANS: D
   PTS: 1    REF: EX 324    TOP: Critical Thinking