



Beginning RPG  
152-115

Student Name _____
Score / 20

**Chapter 7**

1 point for each correct answer.

**TRUE/FALSE. Write 'T' if the statement is true and 'F' if the statement is false.**

- \_\_\_\_\_ 1. Time and date (but not the timestamp) data types allow alternate display formats to the defaults. Date, for instance, supports five different formats, and time supports eight different formats.
- \_\_\_\_\_ 2. Unlike date and time typed literals, timestamp literals must always be in the same format, regardless of any formatting keywords elsewhere in the program.
- \_\_\_\_\_ 3. To avoid runtime errors when dealing with dates, you should always use one of the 4-digit year formats.
- \_\_\_\_\_ 4. Duration is the term RPG uses to describe a unit of time between two dates, times or timestamps.
- \_\_\_\_\_ 5. The %Subdt function always treats the \*Days code as the day of the month (even for \*JUL format dates), and always returns a four digit year when you specify the \*Years code.
- \_\_\_\_\_ 6. Operands in a date expression must not necessarily be a date data type or a duration subtype; the program can directly mix date values with numeric or character data in the same expression.
- \_\_\_\_\_ 7. The primary use for the %Date (Convert to date) function is to convert a numeric or character value to a date data type.
- \_\_\_\_\_ 8. Using %Date, you need not account for a separator when converting numeric values since numeric values would not allow a separator.
- \_\_\_\_\_ 9. The %Timestamp (Convert to timestamp) function converts the value of a character or numeric expression – or a date expression – to a timestamp data type.
- \_\_\_\_\_ 10. The %Char (Convert to character data) function **is** generally used to convert the result of a numeric variable, literal, named constant or expression to a character value but also works to convert dates, times and timestamps to character data.

**MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question**

- \_\_\_\_\_ 11. Each of the date-related data types has a preset size and format, and each has a default display format (\*ISO), based on the International Standards Organization (ISO) standards. The default display format for dates is a:
- 10 byte-long field with format dd-mm-yyyy.
  - 8 byte-long field with format dd-mm-yy.
  - 10-byte-long field with format yyyy-mm-dd.
  - 8 byte-long field with format yy-mm-dd.
- \_\_\_\_\_ 12. The separator character is an intrinsic part of the format. Each display format includes a default separator character. For example, the separator character for the \*ISO date format is then:
- slash (/).
  - hyphen (-).
  - asterisk (\*).
  - Any of these if specified in Definition specifications.
- \_\_\_\_\_ 13. The format of the date or time in the typed literal may vary from one program to another. The default format is \*ISO. But if you've coded a Datfmt (or Timfmt) keyword to specify a default date (or time) format for the program:
- The format of the typed literal must match the format you code in the Control specification.
  - Enclose the value within apostrophes, but precede it with a data type code to indicate which data type the literal represents.
  - The value to be assigned must appear to the right of the equal sign.
  - The function must logically match the data type of the expression's result variable.
- \_\_\_\_\_ 14. RPG IV lets you assign the values of named constants or figurative constants \*Hival and \*Loval to:
- Dates.
  - Times.
  - Timestamps.
  - All of these.
- \_\_\_\_\_ 15. \*Hival and \*Loval can have different values, though, depending upon which format a date is using. The formats which allow 4 digit years can store any value from January 1, 0001 until December 31, 9999 — while dates in the 2 digit year formats are restricted to:
- a 100 year window from January 1, 1900 until December 31, 1999.
  - a 100 year window from January 1, 1940 until December 31, 2039.
  - a 99 year window from January 1, 1900 until December 31, 1999.
  - a 99 year window from January 1, 1940 until December 31, 2039.

- \_\_\_\_\_ 16. The %Diff (Difference) function calculates the duration between two date/time values. You can use the %Diff function to find the duration between all but:
- two dates.
  - two timestamp.
  - a time and the time portion of a timestamp.
  - a date and the time portion of a timestamp.
- \_\_\_\_\_ 17. The %Subdt (Extract from date/time/timestamp) function “substrings” a date; that is:
- it extracts a portion of a date, time, or timestamp data item.
  - it directly mixes date values with numeric or character data in the same expression.
  - it initialize times and timestamps to their current value when the program starts.
  - it allows you to omit the second parameter – the format.
- \_\_\_\_\_ 18. Several functions convert numeric and character expressions to dates, times and timestamps; still others convert date-related data back to character and numeric values. These functions include all but:
- %Hours (Convert to hours).
  - %Timestamp (Convert to timestamp).
  - %Char (Convert to character).
  - %Dec (Convert to decimal).
- \_\_\_\_\_ 19. The %Time (Convert to time) function is similar to %Date, and uses many of the same principles. It will convert a numeric or character value to a time data type. The value to convert can be a:
- variable, literal, constant or an expression.
  - constant, literal, or numeric data.
  - literal, numeric data or timestamp.
  - All of these.
- \_\_\_\_\_ 20. This function is used mostly to convert character expressions to decimal format but also works with dates, times and timestamps, to convert them to numeric packed decimal format.
- %Dml.
  - %Dec.
  - %Diff.
  - %Dcl.