These items are the bread and butter of many a teacher/professor/game show. The intended purpose is to measure a great deal of knowledge in a finite amount of time. Typically a college student can answer 45-60 items in an hour-long course. When written well, these items can provide students and professors with information on whether they have really learned what you intended for them to learn. Do I really need to follow the guidelines below? If you do so, you will increase the likelihood that all items will measure what you intend for them to measure.

When writing these items, consider the following. Each item consists of a “Stem.” The stem is the actual question and should include the WHOLE problem. The “options/choices” include the correct answer and “distracters.” Distracters are plausible choices for those who do not know the correct answer.
Item Writing Guidelines for Multiple-Choice Items

1. The stem should contain the central problem and all qualifications, including words that would be repeated in each alternative.
2. Each item should be as short as possible.
3. Negatively stated items should be used with care.
4. Ask for the “best” answer and use terms such as “most” and “primarily” if more than one answer is at least partially correct.
5. The omissions in incomplete statements should occur toward the end of the stem.
6. The reading and linguistic difficulty of items should be low.
7. Avoid regular, recurring patterns of correct responses (e.g., too many a’s in a row).
8. Whenever possible, arrange alternatives in a logical order (e.g., smallest number to largest number).
9. Distracters (incorrect answers) should be plausible and attractive if the item is to measure real learning.
10. To the extent possible, alternatives should be uniform in subject content, form, length, explicitness, and grammatical structure.
11. The correct response should not occur in a regular recurring pattern and should occur approximately equally at all response option positions.
12. Have three or more options per item unless doing so requires using implausible options.
13. Avoid items that reveal the answer to another item.
14. Avoid specific determiners such as “always” and “never.”
15. “None of these” may be useful as a last option for correct answer items although its use tends to make items more difficult.
16. “All of these” or “more than one of the above” options may be useful but should not be used within the same item.
17. Paragraph each option, unless all of the options fit on a single line.
18. Use numerals for items and letters for options.
19. Punctuate the items carefully.
BAD MULTIPLE-CHOICE ITEMS

1. Usable energy is lost at each level of a food chain in the form of
   A. Heat
   B. Chemical energy
   C. Light
   D. Sunburn
   E. None of the above
   F. All of the above
   G. A and C above
   H. A, B, and C.

Why is this item BAD? It is BAD for a number of reasons. There are too many choices. All of the above and none of the above appear in the same item. Distractors G and H are overkill.

2. ____________ is the best primary source in researching the factors influencing U.S. involvement in Vietnam in the 1960's.
   1. LBJ’s personal correspondence.
   2. A journal article about McNamara.
   3. JFK’s biography.
   4. An interview with Dean Rusk, former Secretary of State.
   5. Your Aunt Martha who was alive in the 1960's.

Why is this item BAD? The blank is at the beginning of the stem thus requiring students to read the item more than once as their schema is not activated until the end of the item. Distractor number 5 is implausible and unnecessary. Testing really isn't intended to be that fully!
GOOD MULTIPLE-CHOICE ITEMS

1. When a set of data \((x,y)\) is plotted on a standard coordinate system, the data points essentially lie on the arc of a nonlinear curve. When the data are transformed by taking the natural logarithm of the \(y\)-values and graphed as \((x,\ln y)\), the data are close to lying on a straight line. This indicates the initial data would best be modeled by what type of function?
   a. Exponential
   b. Quadratic
   c. Rational
   d. Square root

Why is this item GOOD? All of the information is included in the stem to allow students to answer the question. Each choice is plausible.

2. According to a recent study by the Educational Testing Service, what percent of white 21-25 year olds could locate information in a news article or an almanac?
   a. 25
   b. 50
   c. 75
   d. 100

Why is this item GOOD? Again, all of the information is included in the stem to allow students to answer the question. Each choice is plausible and they are ordered logically (smallest to largest).