Item Writing Guide for MSCN Certification Exam

This guide has been prepared to assist people in writing test questions, particularly for use in credentialing/certification types of examinations such as the MSCN exam. It describes some of the characteristics of good test items and suggests approaches to developing them. Without good items, it is impossible to have a good examination. [*]

What are the components of a multiple-choice item?

Each multiple-choice question is composed of a STEM followed by four OPTIONS – one CORRECT OPTION and three DISTRACTERS.

EXAMPLE: STEM   Who invented the light bulb?

                    CORRECT OPTION   1. Thomas Alva Edison
                    DISTRACTER   2. Ben Franklin
                    DISTRACTER   3. Alexander Graham Bell
                    DISTRACTER   4. Leonardo da Vinci

The stem may be presented in question form, like the previous example, or as an incomplete statement, as shown in the example below.

EXAMPLE: STEM   The light bulb was invented by

                    CORRECT OPTION   1. Thomas Alva Edison
                    DISTRACTER   2. Ben Franklin
                    DISTRACTER   3. Alexander Graham Bell
                    DISTRACTER   4. Leonardo da Vinci

Characteristics of a good STEM.

1. A good stem presents a problem situation clearly.

Poor: An elevated white blood count is:

    1. a sign of infection.
    2. dangerous.
    3. normal.
    4. any count over 20,000.

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[*] The original guide was developed by Professional Testing Corporation of New York (PTCNY), and condensed to this version by Cindy Phair, RN, MA, MSCN, President of the Multiple Sclerosis Nursing International Credentialing Board, with approval of PTCNY.

Better: An elevated white blood cell count is most often symptomatic of

1.   an infection.
2. diabetes.
3. high blood pressure
4. respiratory insufficiency.

In the poor example, the stem does not pose a problem. It fails to provide a frame of reference for answering the question. In the better item, the stem is focusing the test taker on looking for something that an elevated white blood count is a symptom of.

2. A good stem is stated positively rather than negatively.

Poor: Which city is <u>NOT </u>in California?   Better: In what state is the city
                                                      of Boise located?

1. Boise   1. Idaho
2. Sacremento   2. Iowa
3. Los Angeles   3. Ohio
4. San Francisco   4. California

3. A good stem avoids the use of the pronouns "it", "he", "she", and "you".

Questions that ask "What would you do?" can have no single right answer, since the test takers could justify their individual responses.

4. A good stem is presented as simply as possible, including only information necessary to understand the problem.

Poor: Mr. W. is 73 years old who has suffered from headaches for several years. His wife died four years ago from a stroke. He has two children, both now grown and living in other parts of the country. Mr. W. believes his headaches may be due to high blood pressure. In an effort to establish the cause of the headaches, what is the first procedure that should be initiated?

Better: What should be the first procedure initiated to diagnose the probable cause of chronic headaches?

Characteristics of good OPTIONS.

1. Correct options are unquestionably correct, and distracters are unquestionably wrong.

2. The correct option is similar in length to the distracters. If the item contains distracters that are short and imprecise with a correct option that is long and detailed, the candidates will quickly recognize and reject the incorrect distracters.

3. Good options avoid absolute terms like "all", "none", "always", "never". Terms such as "generally" and "often" are likely to be used in correct options.

4. Options are mutually exclusive. If two options have the same meaning, and only one answer is to be selected, candidates will realize that both options must be incorrect and recognize them as distracters.

5. "None of the above" or "all of the above" are avoided as options.