

INSTITUTE OF HAZARDOUS MATERIALS MANAGEMENT

### ITEM WRITING CONFIDENTIALITY AGREEMENT

I am submitting an item processing form with items for review and approval. I am bound by the IHMM Code of Ethics and also agree to abide by the following additional standards.

- I understand that examination materials are confidential and protected by trade secret law and other applicable law, and agree to maintain strict confidentiality in all phases of the item development in which I participate.
- I expressly acknowledge, understand, and agree that all materials relating to the IHMM examinations, whether they are prepared in whole or in part by me or by another person, are and shall remain the exclusive property of IHMM.
- I agree to take all necessary precautions to ensure the security of any examination materials to which I am • exposed, either physically or conceptually.
- I shall not share information about any items or discuss items under development with anyone outside the IHMM Executive Office or the IHMM Examination Committees, either during or after the conclusion of my item writing for recertification.
- I may receive Certification Maintenance Point for this effort, but I shall not use my participation in this effort • for any other type of personal recognition or gain. For example, I shall not advertise that I have been involved in item development, and I shall not claim to have any special knowledge about the examination.

I agree that this agreement shall be construed and controlled by the laws of the State of Maryland, and further consent to jurisdiction by the state and federal courts sitting in the State of Maryland.

**Certificant Signature** 

Date







# **IHMM ITEM PROCESSING SHEET**

1. PROPOSED QUESTION (Stem of item):	DATE SUBMITTED:		
2. ANSWER AND DISTRACTORS (Responses):			
A			
B			
C			
D			
3. CORRECT RESPONSE (mark the square with an X for the con	rrect answer: A. 🗆 B. 🗆 C. 🗆 D. 🗖		
<ol> <li>AUTHORITY/SOURCE (Be precise; for example: Authority: UNR 2.3.2.6 or ICAO TI Doc 9284 AN/905 Part 1 Chapter 5 / 5.4.2.b Security plan Page 1.5.3) Items will not be accepted without reference source.</li> </ol>			
5. SPECIFY THE CREDENTIAL SPECIFICATION BLUEPRIN BLUEPRINT: (example: Knowledge Duty Area 1: National a completed). R			
6. SUBMITTED BY:			
NAME (First, Middle Initial and Last Name:			
CERTIFICANT #:			
PHONE AND E-MAIL:			
Office Use Only			
·			
	DATE REVIEWED:		
Committee Review – Staff Liaison:	DATE REVIEWED:		

# **Guidelines for Preparing Multiple-Choice Items (Exam Questions)**

All multiple-choice items consist of two basic parts: a **stem** and the **responses**.

The **stem** is the introductory statement or question that elicits the correct answer. Each stem should address only one problem or content area. Items should assess important areas of knowledge or application of facts and problem solving. Avoid items that assess only obscure factual information. Items can be written in the form of an incomplete statement, as well as in question form.

The **responses** are suggested answers that complete the statement or answer the question asked in the stem, only **one** of which is the correct answer (that is, one correct response and three incorrect responses). You must provide the distractors as well as the correct answer.

Make the correct answer the first response (line A). Each response should be clearly and concisely worded and grammatically parallel with the item stem. If the response requires units of measure, provide unit name. **Do not use** "all of the above" or "none of the above" in responses.

Distractors should represent unsafe practices or commonly held misconceptions and **should sound plausible**. Avoid using distractors that even the most uninformed examinee would recognize as incorrect. Do not use excessively technical language or jargon. Avoid as much as possible the use of negatively stated responses. Also, the use of humorous or absurd distractors is not appropriate. For example:

#### Poor

The person who developed the psychoanalytic theory of human behavior is:

- A. Sigmund Freud
- B. Florence Nightingale
- C. Jonas Salk
- D. Woody Allen

#### Better

The person who developed the psychoanalytic theory of human behavior is:

A. Sigmund Freud

B. B.F. Skinner

- C. Carl Rogers
- D. John Watson

It can be helpful to draft an item first as a direct question, then revise it to an incomplete sentence if this results in smoother, less repetitive wording. Whenever possible, include in the stem all words that would otherwise have to be repeated in each of the responses.

The correct answer must clearly stand out as the one that experts in the field would recognize as the best response, and you **must provide a copy of the page(s) of the reference material** that supports your correct answer.

The item should ask the candidate what "should" be done, or require him or her to choose the procedure "generally recognized" as being appropriate. Do not use the form "what would you do?" or "what do you believe?" In items worded this way, the examinee could always defend his or her response as being correct, since each person has a unique frame of reference.

It is important to keep in mind the distinction between items in which **only one** response is correct and items in which more than one response may be technically correct even though one response is the best answer. When there is doubt or controversy about the correct response, not only is the examinee confused, but the item could be challenged as being inappropriate.

Responses should not overlap or include each other so that the examinee could possibly select more than one response and still be technically correct. For example:

### Poor

The	right	to vote	in the	United	States is
granted to individuals of what age?					
A. 1	18			C. 17	
B. 1	6			D. 19	

### Better

The right to vote in the United States is granted to individuals *beginning at what age*?

A. 18	C. 17
B. 16	D. 19

Do not include non-essential information in the item stem. Stems should ask the question as succinctly as possible. For example:

#### Poor

In 1850, Adolphe Chattin, then professor of pharmacy in Paris, showed that goiter resulted from an inadequate amount of iodine in the diet. Iodine affects functioning of the thyroid gland. The thyroid is part of which body system?

- A. Endocrine
- B. Nervous
- C. Locomotor
- D. Cardiovascular

#### Better

The thyroid gland is part of which body system?

- A. Endocrine
- B. Nervous
- C. Locomotor
- D. Cardiovascular

Avoid providing the examinee with extraneous clues that will allow him or her to detect the correct answer without actually knowing it. For example, do not put the same key words or descriptive words in both the stem and the correct answer but not in the distractors.

Please fill in all the information requested on the other side, and don't forget to include the copy of your source material. Mail to:

IHMM, Attn: Board of Examiners,				
9210 Corporate Blvd., Suite 470				
Rockville,	MD	20850		