

American Academy of Health Physics American Board of Health Physics Web site: aahp-abhp.org

Corner

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Question Writing For Part I

The Part I Exam Panel is always looking for good multiple-choice questions to add to the exam bank.

The person whose question is accepted into the exam bank will be awarded certification maintenance continuing education credits (CECs). (Submittal of copy of written acceptance from the American Board of Health Physics [ABHP] Exam Panel is required for credit: 1 CEC per Part I question, 4 per Part II question with a maximum 16 per recertification cycle.) Part I questions are reviewed at the annual Exam Panel meeting in November. The questions must be approved for inclusion in the bank; awarding of CECs has no bearing on whether items may or may not appear on the exam.

Questions about instrumentation, operational health physics, and nonionizing radiation are especially needed. Questions should be designed so that the well-qualified candidate will be able to answer them correctly. The minimally qualified candidate for Part I is profiled as having a B.S. in health physics and one year of experience; a B.S. in the physical sciences, biology (with a minor in the physical sciences or equivalent), or engineering and two years of experience; or an M.S. in health physics or an M.S. in the physical sciences, biology (with a minor in the physical sciences or equivalent), or engineering. The candidate experience is reviewed to verify involvement in workplace analytical problem solving on a professional level.

The ABHP question consists of a premise followed by five choices, only one of which is correct. A brief narrative, an explanation of calculations, and a reference, if possible, should be included for both the correct answer and the distracters.

The basic format consists of a stem followed by five choices. The stem may be either a statement to be completed or a question. All information common to all answers should be included in the stem. Insure that all of the choices are grammatically correct. Avoid:

- 1. All of the above
- 2. None of the above
- 3. Not enough information given to determine the answer
- 4. Combination answers, such as (a) and (b) above
- 5. The best answer is:

Construction of the stem is extremely important. It should contain sufficient information to answer the questions, but knowledge of basic health physics does not have to be included. Creating an effective stem will make construction of the distracters easier. Avoid obscure words and nonsense terms.

The correct answer must be unequivocally correct and the distracters must be plausible but unequivocally wrong. All answers should be about the same length and avoid buzzwords that might give away the correct answer. The use of action verbs is a good idea.

The incorrect answers must be absolutely wrong, unless the stem asks for the best answer. No distracter should be ridiculous. Trick questions must be avoided; the goal is to ensure that the well-qualified candidate will select the correct answer. Do not use synonyms as distracters.

When writing calculation questions, look for reasonable distracters and do not always put two higher and two lower then the correct answer. Each distracter in calculations should be obtained by a logical mistake, such as a mathematical error.

For typical questions, check out the exam prep guide at http://hps1.org/aahp/abhp/prepman/prepman.htm. A listing of references is also at this site.

If there is a group of CHPs interested in a questionwriting workshop in a given location, please let me know. We will try to accommodate all requests. If you have any questions, please feel to contact any member of the Part I Exam Panel or me:

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