

APPENDIX H

Standards for Writing Short Answer Questions

Short-answer questions are questions which can be answered in just a few words or phrases. For questions that contain subquestions, each subquestion should be answerable in a few words or phrases. (See the two examples below).

Short-answer questions are to be contrasted with *short essay questions* which require longer and less structured responses (from one or two sentences to one or two paragraphs). An example of a short essay question: "Discuss the advantages of using treatment XYZ for ABC". The distinguishing element between short-answer and short essay questions are that short-answer questions usually require only one element of information per question or subquestion whereas short essay require more than one element of information in the response.

By contrast with long essay or short essay questions, short-answer questions are much easier to score and less subjective. Because they are very structured, they leave very little room for interpretation for the examinee as well as for the examiner or rater. Their advantage over multiple choice questions is that they are easier to construct than MCQs.

It has often been said that short-answer questions can only test factual knowledge at a low level of complexity and that long or short essay items are more appropriate for high level reasoning skills. This can be true or false depending on how the question is formulated and the answer structured. It is possible to present very complex information in the stem of a short-answer question, so that the student's response, even though brief, will reflect a high level of intellectual functioning. By using case scenarios (sometimes called 'clinical vignettes') in the context of the question, the question can actually tap into the kind of reasoning that is done on the job. The next page shows two examples of short-answer questions: the first tests factual knowledge at a low level of complexity and the second taps into complex reasoning skills.

Example 1

Name three possible causes for dyspepsia:

- a)
- b)
- c)

Example 2

A 62-year old woman is admitted to hospital with headache and diplopia of recent onset. One year ago, she had been diagnosed to have stage III, diffuse, large cell lymphoma. She received treatment with chemotherapy. She went into complete remission and chemotherapy was stopped after six cycles. Investigations after her present admission includes a lumbar puncture, which established a diagnosis of meningeal lymphomatosis. No recurrence of lymphomas formed anywhere else in this patient.

List three forms of therapy available to treat this woman.

- a)
- b)
- c)

Tips for writing good short-answer questions

1. Use questions that can be answered realistically in a *few words or phrases*. In general, each question or subquestion should require only one element of information. For example, the following question: “What is the most likely diagnosis and what treatment plan do you recommend?” should be reformulated into two separate questions. Should the question require several pieces of information (ie. if a treatment has several different components), the wording of the question and the marking scheme should reflect this.
2. Provide *visual guidelines* to indicate the scope of the answer that is expected.
3. Within one question, use *lines of the same length* so as not to provide additional cues to the required answer.
4. Use either *direct questions*: “What is the best treatment for....?” or very specific verbs such as ‘list’, ‘name’, ‘outline’, ‘describe’. The verb ‘discuss’ should not be used as the answer required would be too long to qualify as a short-answer question. When using verbs such as ‘describe’ or ‘outline’, provide some indications as to the limits of the answer to be provided (ie. Briefly describe, provide a brief outline). In some cases, it may be necessary to specify what does not need to be covered. (Example: “Name one commonly accepted treatment regimen for this patient. Be specific but treatment fields, doses and schedules are not required.”) The aim should be to make the criteria for scoring obvious to the candidate.
5. Be careful *not to provide cues to the answer* in your question. Here is an example of a question that avoids giving any cues: “What additional investigation(s), if any, is/are required to make a treatment decision?” as opposed to one that does “What additional investigation should you perform before you can make a treatment decision?”
6. The value of each question (its relative weight in the short-answer examination), or in the case of a question that contain subquestions, the value of each subquestion, must be determined in advance and indicated in the examinee’s copy of the examination.
7. For each question or subquestion, it is necessary to identify and to devise a scoring scheme for the acceptable and the unacceptable answer(s) as well as for answers that are not the best answer but that are nevertheless acceptable. This needs to be done before the examination and not at the moment of scoring the examination. Nevertheless, some adjustment to the scoring criteria may need to be done at the moment of scoring, when raters are faced with answers that had not been expected.
8. If only one answer will be considered acceptable, use a very specific stem to indicate this.
(Example: “What is the **best** treatment ...?” “What is the **most commonly** used...?”, “What is the **most likely** diagnosis?”)
9. In some cases, the development of the scoring criteria will reveal the ambiguity of a question and the test developers may then want to revise the wording of the question. For best results, the questions should go through one final revision after the scoring scheme has been determined to ensure that the wording of the questions is appropriate for the answers that are expected.
10. As much as possible, the length of the clinical vignettes should be proportional to the value of the question. Students should not spend a long time reading and integrating the information for a question that is worth very few marks.

11. Clinical scenarios must be developed in relation to the knowledge expected of a generalist getting ready to start independent practice.

12. While the initial development of model answers may be done by individual examiners, the input of several other members is essential to ensure the validity of the accepted answers. Model answers must be approved by the test committee prior to the administration of the examination.

Adapted from a document of the Royal College Physicians and Surgeons of Canada.

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