

These are guidelines for writing multiple choice questions for knowledge and consolidation tests that are an integral part of ECITB provider approved courses. Please follow these guidelines, and this will help ensure the quality and integrity of tests associated with ECITB approved courses, and will also optimise the likelihood of your multiple-choice questions and tests being approved.

Good practice

Question writing

Follow the rules below to ensure that your questions are written clearly in order to avoid confusion and so that the questions are focused on their real purpose to test specific knowledge.

Good practice	Reason
The question should be as clear and concise as possible	Increases the clarity of the question
Put as much of the wording as possible in the question, rather than in answer options	Increases the clarity of the question
Ensure the question is meaningful without having to read all the answer options first (is this the same as the one above but written differently?)	Increases the clarity of the question
Avoid giving clues to the correct answer in the question	Ensures the question tests knowledge
The question of a multiple-choice question should contain only material essential for answering the question	Increases the clarity of the question
Where possible, state the question in positive rather than negative terms. The use of negatives can confuse and lead to sentences that are difficult to interpret.	Creates confusing grammar
If negatives have to be used, highlight the negative in the question (e.g. in italics). In particular, avoid double negatives	Increases the clarity of the question
Avoid trick questions	Reduces confusion
Use "Which of these" Avoid: "Which of the below" or "Which of the following"	Looks better when viewed in MSP
Do NOT ask what a technical abbreviation is short for	Irrelevant
Ask direct questions which end with "?" Avoid ending a question with "....."	Increases the clarity of the question
If a question has more than one correct answer. Finish the sentence with – "Select two/three answers"	Standardisation
Avoid duplicate wording in only the question and the correct answer	Too obvious
Ensure the question and answer options use words that are academically levelled for the target candidate.	Appropriate assessment of the candidate
Avoid giving clues to the answers to other test questions in the question and the answer options	Too obvious
Avoid duplicate wording in only the question and the correct answer	Too obvious

Examples

Poor	Better
Which one of the following is not a safe driving practice on icy roads? a) accelerating slowly b) jamming on the brakes c) holding the wheel firmly d) slowing down gradually	Which of these are safe driving practices on icy roads (select 3 answers): a) accelerating slowly b) jamming on the brakes c) holding the wheel firmly d) slowing down gradually

This poor question only makes sense after all the alternatives have been read

Poor	Better
Glasgow is: a) north of London b) south of London c) east of London d) west of London	Which direction is Glasgow from London? a) north b) south c) east d) d) west

Writing the incorrect answer options

Writing plausible incorrect answer options (designed to distract the learner from the correct answer) is one of the most difficult aspects in composing questions.

Tips for incorrect answer options

Good practice	Reason
Use statements based on common student errors and misconceptions	Ensures the question tests the correct knowledge
Use true statements that do not answer the question	Increases the clarity of the question
Ensure all the answer options are grammatically similar, as well as consistent with the question.	Increases the clarity of the question
Keep the incorrect answer options sufficiently different to the correct answer in substance, and not just clever or subtle wording	Avoids confusion
Make sure that incorrect answer options are plausible to the uninformed as opposed to obviously wrong	Increases the clarity of the question
Ensure that the incorrect answer options are independent and mutually exclusive.	Makes the question clearer
Avoid absolute statements (e.g. 'never', 'always', 'all') as students will rule them out	Too obvious
Avoid absurd, jokey and idiosyncratic answer options – they are easily spotted	Too obvious
Check for redundant words in the answer options	Increases the clarity of the question

Some questions only need two or three answer options as opposed to always requiring 4 answer options – sometimes using a different numbers of answer options is appropriate for the question	Created additional incorrect answer options to keep the numbers up is unnecessary
Avoid using the alternative ‘all the above’ because it makes it possible to answer the question on the basis of partial information e.g. a student can work out that ‘all the above’ is a wrong answer if he/she recognises another answer option as incorrect.	Too obvious
Where possible avoid using ‘none of the above’ as when used as a correct answer this measures the ability to detect wrong answers as opposed to being a guarantee that a student knows the correct answer to the question.	Too obvious

Example

Poor	Better
Which vehicle is designed to travel on water? a) boat b) car c) space rocket d) a banana	Which vehicle is designed to travel on water? a) boat b) car

Writing the correct response

Avoid giving a clue by having the correct answer response noticeably different to the incorrect answer options in terms of:

- length
- grammar and/or syntax
- being the only one to appear to match the question

General good practice for writing multiple choice questions

Good practice	Reason
Ensure the question and answer options use words that are academically levelled for the target candidate.	Appropriate assessment of the candidate
Avoid duplicate wording in only the question and the correct answer	Too obvious
Avoid using labelled images where labelled answer options may provide the answers to other questions	Too obvious
In terms of arranging the responses: present them in a logical (e.g. numerical) order if one exists.	Good practice
Minimise use of abbreviations – only use if followed by a descriptor in brackets	Use of abbreviations can create confusion
Correct inconsistent abbreviations and write out in full, i.e. 1t or 1te becomes 1 tonne	Standardisation
Avoid writing in the second person	Creates subjectivity
Only use capitals when starting a sentence or using proper nouns	Incorrect grammar can lead to confusion

Avoid mixing plural and singular, e.g. if question asks for plurals then all answer options should contain plurals	Incorrect grammar can lead to confusion
Use symbols where this is the normal practice e.g. 30° not 30 degrees	Standardisation
Check regulations/legislation version before publication	Keeping material current
Check grammar	Incorrect grammar can lead to confusion
Check for typos	Looks unprofessional
Always ‘... shown in the image...’, not ‘...this image...’	Standardisation

Examples

Poor	Better
You have been asked to complete the assembly of a valve on a welded pipe spool, which process must have been completed before you can continue?	Which process must be completed before assembling a valve on a welded pipe spool?
<p>Whilst preparing a new valve for installation you notice that the serial number on the valve does not match the QA certificate, what should you do?</p> <ul style="list-style-type: none"> a) notify your supervisor b) fit the valve as it matches the specification requirements c) place to one side and continue with the assembly d) put the valve back in the store and get a replacement 	<p>The serial number on a valve being prepared for installation does not match the QA certificate. What is the correct procedure?</p> <ul style="list-style-type: none"> a) notify the supervisor b) fit the valve if it matches the specification

A final top tip – ask two or three colleagues to trial your suggested questions.