

Standard Grade Chemistry

Setting of Grid Items

- i) Candidates should have sufficient knowledge to answer the question against the information in ALL the boxes of a grid. For example, if the question is “Which gases decolourise bromine water?”, it is unfair to include ammonia in the grid, since candidates will not have tested ammonia with bromine.
- ii) Boxes should contain the minimum of text, and where technical words and phrases are used they should be ones with which the candidates are familiar.
- iii) Where there is an introduction to a question, this should be as brief as possible and be included only to set the question in context.
- iv) Candidates should be provided with answer matrices for each question and be asked to ring the letter(s) of the appropriate answer(s) in the answer matrices.
- v) Letters used to designate grids should also be boxed.
- vi) Boxes in the grid should be laid out in the most appropriate way, e.g. if sentences or long statements are used in a grid, the presentations should be as follows:

A	
B	
C	

etc

- vii) Hyphenated words in two separate lines in a grid should be avoided.
- viii) No chemically incorrect information should be included in the grid.
- ix) The number of boxes in a grid should be related to the amount of information to be conveyed.
In and after 1994:
grids comprising three boxes will not be used.
no grid items will comprise more than six boxes.
- x) 4 box grid questions with 2 unconnected responses should not be employed.
- xi) The maximum number of correct responses will be two.
all ‘closed’ grid items will be worth one mark.
the maximum number of marks to be awarded for any ‘open’ grid item will be two.

In the case of “open” questions (see below), the stem of the item must be grammatically correct in both its singular and plural forms.

Marking of Grid Items

Essentially, two types of grid item exist – “closed” items, where the stem of the question clearly indicates the number of responses required, and “open” items, where the stem makes no such specification.

“Closed” Grid Items

These are items which require candidates to demonstrate mastery more than once and have the number of correct responses indicated in the stem.

To gain the mark(s), ALL correct responses must be given. No partial marks should be awarded.

The following is an example of a “closed” grid item.

A	CH ₄	B	H ₂ S	C	N ₂
D	O ₂	E	CaCl ₂	F	NH ₃

Which TWO boxes show the formula for a substance which exists as diatomic molecules?

This item is worth 1 mark, for which both correct responses are required. Any variation from this scores zero marks,

- i.e.
- one response (correct or incorrect) – no marks
 - one correct and one incorrect response – no marks
 - three responses – no marks

“Open” Grid Items

These are items which require candidates to demonstrate different aspects of Knowledge and Understanding or Problem Solving and do not have the number of responses indicated.

The following is an example of an “open” grid item.

Each box in the grid shows the name or the formula for a compound.

A $\begin{array}{c} \text{H} \\ \\ \text{H} - \text{C} - \text{OH} \\ \\ \text{H} \end{array}$	B butane	C $\begin{array}{c} \text{H} \\ \\ \text{H} - \text{C} - \text{H} \\ \\ \text{H} \end{array}$
D ethene	E $\begin{array}{ccccccc} & \text{H} & \text{H} & \text{H} & & & \\ & & & & & & \\ \text{H} & - \text{C} & - \text{C} & - \text{C} & = & \text{C} & \\ & & & & & / & \\ & \text{H} & \text{H} & & & \text{H} & \end{array}$	F ethanol

Which box (or boxes) shows a saturated hydrocarbon?

This item is worth 2 marks and in marking it a cancelling mechanism comes into operation whenever the number of answers given exceeds the number of correct responses.

e.g. BC 2 marks
BD or CE 1 mark
BCD 1 mark
ABF 0 marks
BCDE 0 marks
ABCDF 0 marks.