

Frequently Asked Questions – GCE Chemistry (2016)

What way do we name amines?

Due to the complexity of the nomenclature of amines, all correct names are allowed. For example $\text{CH}_3\text{CH}_2\text{NH}_2$ is ethylamine, ethanamine or aminoethane; $\text{CH}_3\text{CH}_2\text{CH}_2\text{NH}_2$ is propan-1-amine, propylamine or 1-aminopropane.

Do candidates need to know the colours of chlorine and bromine in non-polar solvents?

A range of colours for chlorine and bromine in non-polar solvents would be accepted. The mark scheme will give the answer expected by the examining team but other answers will be accepted and combinations of colours would be allowed provided no incorrect colours are given. The colours expected for chlorine and bromine are the same as those for chlorine and bromine in water.

How do candidates know what number of significant figures or decimal places is expected in their answer?

From 2020, where an answer is required to a specific or appropriate number of significant figures or a specific number of decimal places, this will be indicated in the question. An appropriate number of significant figures will mean the candidate using the given data, which will be clear and unambiguous, to decide on the most appropriate number of significant figures.

What are the intermolecular forces present in water and ammonia?

For water and ammonia, the intermolecular forces present in the liquid state are van der Waals' forces and hydrogen bonds. Hydrogen bonds are considered to be a specific type of permanent dipole-dipole attraction.

Is a dipole arrow allowed to show the polarity of a covalent bond?

The use of partial charges using δ^+ and δ^- is the preferred method of showing polarity of a covalent bond. The arrow is normally used to represent the dipole of a molecule which is not necessarily the same as the polarity of a covalent bond within the molecule so partial charges are required.

Is the specification name methyl-3-nitrobenzoate acceptable?

The IUPAC name is methyl 3-nitrobenzoate but as it is named in the specification as methyl-3-nitrobenzoate both names would be accepted for this compound.

What awards will be available in this specification?

Students can take:

- the AS course as a final qualification; or
- the AS units plus the A2 units for a full GCE A level qualification.

We report the results of individual assessment units on a uniform mark scale that reflects the assessment weighting of each unit.

We award AS qualifications on a five grade scale from A to E, with A being the highest. We award A level qualifications on a six grade scale from A* to E, with A* being the highest.

To be awarded an A*, candidates need to achieve a grade A on their full A level qualification and at least 90 percent of the maximum uniform marks available for the A2 units. If candidates fail to attain a grade E, we report their results as unclassified (U).

To determine candidates' grades, we add the uniform marks obtained in individual assessment units.

What units do students study for this award?

The specification is modular. Students take all three modules at each level:

AS Level

- AS 1: Basic Concepts in Physical and Inorganic Chemistry
- AS 2: Further Physical and Inorganic Chemistry and an Introduction to Organic Chemistry
- AS 3: Basic Practical Chemistry

A2 Level

- A2 1: Further Physical and Organic Chemistry
- A2 2: Analytical, Transition Metals, Electrochemistry and Organic Nitrogen Chemistry
- A2 3: Further Practical Chemistry

What are the prerequisites for this course?

The AS builds, but does not depend, on the knowledge, understanding and skills developed in GCSE Science: Chemistry and/or GCSE Science: Double Award. The A2 section of the Advanced GCE builds on the foundations of knowledge, understanding and skills developed at AS.

In practical booklet A for the AS 3 and A2 3 units, must students make deductions?

No, students may have to process results but they will not be expected to make deductions.

Can students re-sit units?

Students can re-sit each individual unit once. The better result will count towards the overall qualification. Units are available in the summer series only.

How will quality of written communication be assessed?

Quality of written communication is assessed in responses to questions and tasks that require extended writing. These questions will be assessed using a three-tier banded mark scheme. There will be an extended writing question in the AS theory examination papers and a minimum of two extended writing questions in the A2 theory examination papers.

Will there be synoptic assessment?

The A2 assessment units include some synoptic assessment, which encourages students to develop their understanding of the subject as a whole.

What is the most up-to-date information for teachers/centres on how to store chemicals?

Please refer to the CLEAPPS website for the most up to date information on storing chemicals.

CLEAPPS

cleapss.org.uk/