

Advance information June 2022

A-level Chemistry (7405)

Version 1.0

Because of the ongoing impacts of the Coronavirus (COVID-19) pandemic, we are providing advance information on the focus of June 2022 exams to help students revise.

This is the advance information for A-level Chemistry (7405).

Information

- This advance information covers all examined components.
- For each paper the list shows the major focus of the content of the examination; the topic areas are listed in rank order, with the areas carrying the highest mark allocations at the top of each list.
- Topics not explicitly given in the list may appear in multiple-choice items, low tariff questions, or via synopticity.
- Assessment of practical skills (section 8.3 of the specification) and maths skills (section 6 of the specification) occurs throughout the three papers.
- It is **not** permitted to take this advance information into the examination.

Advice

- Students and teachers should consider how to focus their revision of other non-listed parts of the specification, which may be tested in lower mark questions.
- Students will still be expected to apply their knowledge to unfamiliar contexts.
- Students will be expected to draw on knowledge, skills and understanding from across the specification when responding to synoptic questions.

Focus of the June 2022 exam

The inclusion of Required Practicals in the lists below should not be taken to imply direct references to those procedures quoted in the Practical Handbook. They are there to give a general idea of the context in which practical work is being assessed.

Paper 1 7405/1 Inorganic and Physical Chemistry

- 3.1.12 Acids and bases
- 3.1.2 Amount of substance
- 3.2.5 Transition metals
- 3.2.3 Group 7(17), the halogens
- 3.1.1 Atomic structure
- 3.1.3 Bonding
- 3.1.10 Equilibrium constant K_p for homogeneous systems

Paper 2 7405/2 Organic and Physical Chemistry

- 3.3.4 Alkenes (including Required Practical 10)
- 3.1.2 Amount of substance
- 3.3.13 Amino acids, proteins and DNA
- 3.1.6 Chemical equilibria, Le Chatelier's principle and K_c
- 3.1.9 Rate equations
- 3.3.10 Aromatic chemistry
- 3.3.1 Introduction to organic chemistry

Paper 3 7405/3

(This is the synoptic paper, so these topics may be assessed in combination.)

- 3.1.8 Thermodynamics (including Required Practical 2)
- 3.3.1 Introduction to organic chemistry
- 3.2.5 Transition metals
- 3.3.3 Halogenoalkanes
- 3.1.9 Rate equations (including Required Practical 7)
- 3.1.2 Amount of substance (including Required Practical 4)
- 3.1.11 Electrode potentials and electrochemical cells

END OF ADVANCE INFORMATION