



Subject	Chemistry	
Title/Topic	Format	Length
Paper 1: Physical chemistry	Written	2hr 15mins
Paper 2: Organic chemistry	Written	2hr 15mins

In this RTS assessment I will be asked to show I can...

Paper 1:

Analyse the results for a redox titration

Assigning oxidation numbers and identifying, oxidation, reduction and redox

Bond angles and shapes of molecules

Calculate K_c using an ICE table

Carrying out atom economy calculations

Carrying out composition by mass calculations

Comment on the effects of changing conditions on equilibrium position

Compare and explain the physical properties of metals, simple molecules and ionic substances with reference to structure and bonding.

Determine the order of reactants rate equation and rate constant using an initial rates method

Determine the order of reactants, rate constant and initial rate from a concentration/time graph

Draw an electrochemical cell that could be used to investigate electrode potentials

Electron configurations of atoms and ions

Evaluate a redox titration method with reference to an electrochemical series

Explain trends in reactivity in groups 2 and 17

Identify disproportionation reactions and explain what they are

Identifying neutralisation reactions

Interpreting successive ionisation energies to show how they provide evidence for shells identify an element's group and

Interpreting the results of qualitative tests for halide ions including solubility of precipitates in ammonia

Propose a reaction mechanism given a rate equation and overall equation for a reaction



Recalling periodic trends in melting point
The ordering of the periodic table
Use Boltzmann distributions to explain how changing conditions affect the rate of a reaction
Use dot and cross diagrams to represent ionic substances
Using Hess cycles to calculate enthalpy changes and bond enthalpies
Write Kc expressions and calculate a value of Kc for a given equilibrium

Paper 2

Analyse combustion products to deduce the formula of an alkane
Calculate atom economy of reactions and use it to compare sustainability
Calculate the mass of product formed in a reaction
Compare evidence for the Kekule and delocalised models of benzene
Compare the activating and deactivating effects of benzene substituents
Compare the strength of London forces in alkanes
Define the term homologous series
Define the term homolytic fission
Define the term structural isomer
Describe the purification of an organic liquid to obtain a pure dry product
Draw repeat units of addition polymers
Explain differences in reactivity between benzene and phenol
Explain the reactivity of the alkanes
Identify functional groups from formulas
Identify the oxidation products of alcohols
Interpret both IR and mass spectra analysing them to determine fragment ions and functional groups
Know the effects of IR radiation on the atmosphere and chemical bonds
Name compounds using IUPAC nomenclature
Outline mechanisms of halogenation of alkenes
Outline radical substitution reactions of alkanes including mechanisms
Outline the electrophilic substitution mechanism for aromatic compounds including the role of catalysts



Recall the products when alcohols react with halides and sulfuric acid

Represent organic molecules using molecular, display, skeletal and structural formulae

Understand the use of curly arrows in reaction mechanisms

Use CIP nomenclature to differentiate between stereoisomers of alkenes

What should I do to revise and prepare for this assessment?

To prepare for this assessment:

- Review material covered in class by creating flash cards and mind maps for key information.
- Attempt summary questions and end of chapter and module questions from the text book.
- Use select past paper questions from the OCR Chemistry A website and mark these using the associated mark scheme.

Begin your review early and seek help from your class teachers promptly if you need it!

What useful websites/resources could I use to help me prepare?

Text books, notes from class, revision guides!