

<b>Term</b>	<b>Unit/Section</b>	<b>Topic</b>	<b>Modules</b>
<b>1</b>	<b>The Chemistry of Carbon Compounds</b>	<b><i>Structure and Formulae</i></b>	Bonding in carbon compounds Homologous series Formulae Naming organic compounds Isomerism
<b>1</b>		<b><i>Functional Group Analysis, Reactions and Mechanisms</i></b>	Alkanes Alkenes Alcohols Halogenoalkanes Carbonyl Compounds Carboxylic Acids Esters Amines Aromatic Compounds
<b>1</b>		<b><i>Acidic and Basic Character of Organic Compounds</i></b>	Acidity in alcohols, phenols and carboxylic acids Basic character of aliphatic amines, amides and aromatic amines Acid-base properties of amino acids
<b>1</b>		<b><i>Macromolecules</i></b>	Addition polymerisation Condensation polymerisation Monomers and Polymers Proteins Carbohydrates
<b>1</b>	<b>Analytical Methods and Separation Techniques</b>	<b><i>Uncertainty in Measurements</i></b>	Analysis of scientific data Accuracy in measurements and laboratory equipment

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1	Analytical Methods and Separation Techniques	<i>Titrimetric Methods of Analysis</i>	Principles of titrations Primary standards Types of titrations Calculations using titrimetric data Uses of titrimetric analysis
1	Analytical Methods and Separation Techniques	<i>Gravimetric Methods of Analysis</i>	Principles of gravimetric analysis Functions of basic equipment used Calculations using gravimetric analysis data Uses of gravimetric analysis
1		<i>Spectroscopic Methods of Analysis</i>	Electromagnetic spectrum Planck's Equation
1		<i>Ultra Violet-Visible Spectroscopy</i>	Principles of UV/VIS spectroscopy Analysing samples Beer-Lambert's Law Uses of UV/VIS spectroscopy
1		<i>Infrared Spectroscopy</i>	Principles of IR spectroscopy Analysing samples Uses of IR spectroscopy
1		<i>Mass Spectroscopy</i>	Principles of mass spectroscopy Mass Spectrometer Analysing Mass Spectrums Using spectral data to predict identities

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<b>1</b>	<b>Analytical Methods and Separation Techniques</b>	<b><i>Chromatographic Methods of Separation</i></b>	Principles of chromatography Types of chromatography Chromatographic Procedures and analysis Applications of chromatography
<b>1</b>		<b><i>Phase Separations</i></b>	Raoult's Law and vapour pressure Principles of distillation Types of distillation Azeotropic mixtures
	<b><i>End of term Examinations</i></b>		
<b>2</b>		<b><i>Phase Separations</i></b>	Solvent Extraction Applications of distillation methods solvent extraction
<b>2</b>	<b>Industry and the Environment</b>	<b><i>Locating Industrial plants; Benefits and Risks</i></b>	Factors affecting location of industrial plants Safety requirements for industry Green chemistry principles and industrial processes
<b>2</b>		<b><i>Aluminium</i></b>	Aluminium production Uses of aluminium Aluminium industry and the environment
<b>2</b>		<b><i>Crude Oil</i></b>	Methods used in the separation of components of crude oil Uses of the components of crude oil Impact of petroleum industry on the environment
<b>2</b>		<b><i>Ammonia</i></b>	Haber Process Uses of ammonia Impact of ammonia industry on the environment

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2		<i>Ethanol</i>	Production of alcoholic beverages Uses of ethanol Social and economic impact of alcohol production and consumption Impact of alcohol industry on environment
2	<b>Industry and the Environment</b>	<i>Chlorine</i>	Electrolysis of brine using diaphragm cell Industrial importance of halogens and their compounds Impact of chlor-alkali industry on the environment
2		<i>Sulphuric Acid</i>	Contact Process Industrial importance of compounds of sulphur Impact of sulphuric acid industry on the environment
2		<i>Water</i>	Water cycle Water purification Water pollution Impact of pollutants on the aquatic environment
2		<i>The Atmosphere</i>	Ozone Carbon cycle Global warming and Green-house effect Nitrogen cycle Acid Rain Combustion of hydrocarbon- based fuels Control and prevention of atmospheric pollution
2		<i>Solid Waste</i>	3 R's Waste reduction Impact of solid waste on the terrestrial environment
	<b>Pre-CAPE Examinations</b>		