

## CONTENTS

Topic I	PRACTICE WEIGHING; DENSITY MEASUREMENTS	13
Topic II	SOME STUDIES ON MATTER	17
Topic III	TYPES OF CHEMICAL CHANGES	23
Topic IV	THE DETERMINATION OF CHEMICAL FORMULAS	29
Topic V	THE DENSITY OF OXYGEN; DETERMINATION OF THE VOLUME OCCUPIED BY A GRAM-MOLECULAR WEIGHT (MOLE) OF OXYGEN	33
Topic VI	WATER	37
Topic VII	THE EQUIVALENT WEIGHT OF A METAL; THE RELATIONSHIP OF THE EQUIVALENT WEIGHT TO THE ATOMIC WEIGHT; OXIDATION STATE (VALENCE)	41
Topic VIII	FACTORS THAT AFFECT THE RATE OF CHEMICAL CHANGE	43
Topic IX	THE PERCENTAGE COMPOSITION OF AIR	51
Topic X	THE PREPARATION OF STANDARD SOLUTIONS	53
Topic XI-A	ACIDS, BASES, AND SALTS	57
Topic XI-B	THE MODERN ACID-BASE CONCEPT	61
Topic XII	IONIZATION	65
Topic XIII	THE HALOGENS	73
Topic XIV	SOME COMPOUNDS OF SULFUR	83
Topic XV	THE NITROGEN FAMILY	89
Topic XVI	COLLOIDS	97
Topic XVII	THE COMPOUNDS OF BORON AND SILICON	101
Topic XVIII	SOME FAMILIAR ORGANIC COMPOUNDS	105
Topic XIX	TREATMENT OF WATER	109
Topic XX	HYDROGEN ION CONCENTRATION	113
Topic XXI	ELECTROCHEMISTRY	117
Topic XXII	PREPARATION OF COMPOUNDS	119
Topic XXIII	A FEW PROCEDURES IN QUALITATIVE ANALYSIS	123