

Contents

<i>Special Features</i>	i
<i>Instructions on Accessing Online Interactive Learning Resources</i>	iv
<i>Exam Paper Format</i>	v
<i>Comparison between NEW and OLD syllabuses</i>	vi

1 The Cell	1
1.1 Chemicals of life	4
1.2 Discovery of cells	13
1.3 The basic structure of a cell	13
1.4 The cell as a basic unit of life	22
1.5 Cell activities	25
Demonstration	47
Practice	57

2 Organisms and Their Environment	73
2.1 Diversity of organisms	76
2.2 Classification of living organisms	77
2.3 Ecosystem	91
2.4 Energy flows within an ecosystem	95
2.5 Cycling of materials	103
2.6 Ecological interdependence of organisms	107
2.7 Human impact on the environment	112
2.8 Environmental protection	121
Demonstration	126
Practice	138

3 Energetics.....153

3.1 Photosynthesis 156

3.2 Respiration 169

Demonstration 185

Practice 198

Index 213

Question Commands 217