

CONTENTS

	Term
Section 1: System Technologies and Implications	
Module 1.1: Introduction to computers... 2	1
Module 1.2: Software... 13	1
Module 1.3: Hardware... 21	1
Module 1.4: File management... 36	1
Module 1.5: ICT in perspective... 45	1
Module 1.6: Extended software concepts... 52	2
Module 1.7: Extended hardware concepts... 58	2
Module 1.8: The impact of ICT... 70	3
Section 2: Network and Internet Technologies	
Module 2.1: Introducing networks... 76	2
Module 2.2: Network basics... 81	3
Module 2.3: The World Wide Web... 87	3
Module 2.4: Electronic communication... 94	3
Section 3: Word Processing	
Module 3.1: Start working with text... 104	1
Module 3.2: Formatting of pages and paragraphs... 117	1
Module 3.3: Editing... 128	1
Module 3.4: Adding graphics... 140	1
Module 3.5: Further formatting... 155	2
Module 3.6: Tables... 173	2
Module 3.7: Other useful facilities... 189	3
Section 4: Spreadsheets	
Module 4.1: Introduction to spreadsheets... 200	2
Module 4.2: Calculations... 217	2
Module 4.3: Analysing data... 227	3
Module 4.4: Charts... 240	4
Section 5: Presentations and Web Design	
Module 5.1: Presentations... 248	3
Module 5.2: Basic concepts of web design... 255	3
Section 6: Information Management	
Module 6.1: A strategy for solving problems... 270	2
Module 6.2: Finding information... 275	3
Module 6.3: Processing and presenting... 279	3
Section 7: Integrated Skills	
Module 7.1: Working smarter... 284	4
Module 7.2: Case studies... 289	4



TABLE OF CONTENTS

Section 1: System Technologies and Implications	1
Module 1.1: Introduction to computers	2
What is a computer?	2
Hardware and software, The information processing cycle	
Introduction to Windows	4
Start-up time, The desktop, Working with the GUI, Common features of programs	
Saving our work	9
Introduction to the keyboard	10
Module 1.2: Software.....	13
Introduction	13
Application versus system software	13
The operating system	14
The interface, Accessories	
Application software	17
Module 1.3: Hardware	21
Introduction	21
Input	22
Keyboard, Mouse	
Output	24
Monitors / screens, Printers	
Storage	27
Main storage, Portable storage devices	
Connecting external devices	29
Wired connections, Wireless connections	
Health and environmental issues	31
Health concerns, Green computing	
Module 1.4: File management	36
Introduction	36
File Explorer	36
A folder structure	38
More about files	39
File names, File paths, Common file types and extensions	
Working with files and folders	41
Module 1.5: ICT in perspective	45
Introduction	45
Types of computing devices	45
Multi-purpose computing devices, Dedicated devices	
ICT systems	48
Overview, A POS system	
Ethical use of computers	49
Module 1.6: Extended software concepts	52
Introduction	52
Proprietary vs open source software	52
Proprietary software, Open source software	
Software licences	53
Single user licence, Site licence	
System software	54
Utility programs, Drivers	

Module 1.7: Extended hardware concepts	58
Introduction.....	58
Input and output devices	58
Pointing devices, Scanners and reading devices, Video and audio input, Audio output, Data projectors, Visualiser	
Storage – memory cards	65
Processing.....	66
The CPU, RAM and ROM	
Module 1.8: The impact of ICT	70
How ICT influence our lives and lifestyles	70
Communication, Access to information, Leisure	
Impact on business	71
Impact on education	72
Computer crime	73
Information and data theft, Identity theft	
Section 2: Network and Internet technologies.....	75
Module 2.1: Introducing networks	76
Introduction.....	76
What is a network?.....	76
Purpose of networks.....	76
Fast, efficient communication, Sharing of hardware, Sharing of files, Flexible access, Leisure	
Security and privacy	79
Module 2.2: Network basics	81
Introduction.....	81
Small networks – a PAN and a HAN	81
Personal area network, Home Area Network	
Setting up a HAN	82
Connecting to the internet	84
Internet Service Provider, Internet connection	
Module 2.3: The World Wide Web	87
Introduction.....	87
Overview of the WWW	87
Web pages and websites, Web addresses	
Types of websites	89
Blog, Wiki, Social networks, Web applications	
Browsing and searching	90
What is a web browser?, What is a search engine?, What about AI?	
Module 2.4: Electronic communication.....	94
Introduction.....	94
Email.....	94
Email addresses, Practical use of email	
Other modes of e-communication	96
Social media, Instant messaging and chat applications, Online meetings	
Good manners and safety online	98
Netiquette, Guidelines for using the internet safely	



Section 3: Word processing..... 103

Module 3.1: Start working with text 104

What is a word processor?	104
The working environment	105
How to work with computer files	105
Creating and saving a document, Viewing a document, Printing a document	
Working in a new document	109
Entering text, Inserting symbols and other signs, Hidden characters or formatting symbols	
Character formatting.....	111
Character type or font, Character styles, Character sizes, More formatting options	

Module 3.2: Formatting paragraphs and pages 117

Introduction.....	117
Paragraph formatting.....	117
Alignment, Line and paragraph spacing, Paragraph indenting, Paragraph borders and shading	
Formatting with styles	121
Basic page layout	123
Margins, orientation and paper size, Starting a new page, Page numbers	

Module 3.3: Editing..... 128

Deleting, copying and moving	128
Deleting text, Copying text, Moving text	
Finding and replacing text	131
Finding text, Replacing text	
Checking spelling and grammar	133
The proofing language, The spell checker	
Automatic editing options	135
Spacing and punctuation marks	136
Quotation marks, Hyphens and other dashes, Non-breaking spaces	
What is GIGO?	138

Module 3.4: Adding graphics 140

Drop Caps	140
Inserting and formatting pictures	141
Inserting pictures, Formatting pictures	
Other graphic objects	144
Shapes, Text box, Icons and 3D Models, WordArt, Screenshot	
Page formatting	149
Page border, Page colour, Watermark	
Presenting information with SmartArt	151
Choosing SmartArt layouts, Inserting SmartArt, Editing SmartArt	

Module 3.5: Further formatting 155

Bulleted and numbered lists	155
Inserting bullets or numbers, Spacing lists, Customising lists	
Indenting paragraphs	158
Using the ruler and the indent commands, The Paragraph dialog box	
Tab stops	162
Types of tab stops, Setting tab stops, Tab stops with leaders	
Manual line break	167
Page header and page footer.....	168
Cover page	170

Module 3.6: Tables.....	173
Basic tables	173
Creating a table, Column widths and row heights, Alignment options for cells	
Changing the structure and format of a table	177
Inserting and deleting rows and columns, Merging and splitting cells,	
Using the Table Properties dialog box	
Table design and formatting	181
Borders, shading and gridlines, Table Styles	
Sorting and calculations	183
Sorting, Basic calculations	
Text and tables	185
Module 3.7: Other useful facilities.....	189
Columns	189
Creating columns, Inserting a column break	
Hyphenation	191
Using comments.....	193
Referencing	194
Adding a source, Inserting a citation, Inserting a bibliography	
Creating a Table of Contents	196
Hyperlinks.....	196
Section 4: Spreadsheets	199
Modules 4.1:Introduction to spreadsheets.....	200
What is a spreadsheet?.....	200
First encounter with Excel	200
Formulas.....	202
Structure of a formula, Entering and copying formulas	
Formatting a spreadsheet.....	204
Basic functions	206
Structure of a function, Examples of functions, Entering functions,	
Data Formats.....	209
General, Numbers, Currency formats, Text,	
Numbers that must be treated as text, Dates and times	
Effective input using Auto Fill.....	214
Module 4.2: Calculations	217
Introduction.....	217
Further formulas	217
Cell names and range names.....	219
Further formatting and common concepts.....	221
Inserting and deleting rows and columns, Common concepts	
Error messages in Excel.....	223
Module 4.3: Analysing data	227
Functions used to count	227
Simple functions that can count, The COUNTIF function	
Other useful functions.....	230
MODE and MEDIA , RANDBETWEEN and TODAY	
Sorting	233
Worksheets	234
Working with different worksheets, Printing a worksheet,	
Inserting headers and footers	



Module 4.4: Charts	240
Introduction to charts	240
Types of charts	241
Column or bar chart, Line chart, Pie chart	
Creating a chart	242
Printing of charts.....	244
Section 5: Presentations and Web Design	247
Module 5.1: Presentations	248
Introduction.....	248
First acquaintance with PowerPoint	248
Views, Creating and editing a presentation, Printing a presentation	
More about PowerPoint.....	251
Transitions and Animations, Header and Footer, Integration, Adding videos or voice recordings	
Navigation during a slide show.....	252
Setting up a slide show.....	253
Module 5.2: Basic concepts of web design	255
Introduction.....	255
How is HTML used to create a web page?.....	255
The structure of an HTML file	257
Creating formatted web pages	259
Format text in paragraphs, Use headings and paragraphs	
HTML attributes	263
Basic attributes, Text formatting attributes	
Section 6: Information Management	269
Module 6.1: A strategy for solving problems	270
Introduction.....	270
The role of questions	270
Data and information	271
Information sources	271
Electronic media, Printed media, Surveys: questionnaires and interviews	
Module 6.2: Finding information	275
Introduction.....	275
Determine what information you need.....	275
Find the information and save it	276
Decide about resources, Save the data, facts and information that you find, Start sifting your information	
Module 6.3: Processing and presenting.....	279
Introduction.....	279
Using and processing information	279
Step 1: Sift the data and information, Step 2: Process the data and information	
Finding a solution and presenting it.....	281
Planning the presentation	281
Completing the presentation in <i>Word</i> , Presenting the solution as a slide show, Acknowledging sources	

Section 7: Integrated Skills	283
Module 7.1: Working smarter.....	284
Integrating applications.....	284
Problem solving	286
Revising your practical skills.....	288
Module 7.2: Case Studies	288
Case Study 1 – J&J	289
Case Study 2 – The twins and their computers.....	292
Index	295

