

# Table of Contents

<b>Preface</b> .....	<b>iii</b>
<b>Introduction</b> .....	<b>xv</b>
<b>Chapter 1: Introduction to Computer Systems</b> .....	<b>1</b>
1.1 Introduction.....	2
1.2 Defining Computer.....	2
1.3 Exploring the Basic Parts of a Computer .....	3
1.4 Describing Computer Hardware .....	5
1.4.1 Input Devices .....	5
1.4.2 Output Devices .....	10
1.4.3 Storage Devices.....	14
1.5 Describing Computer Software .....	16
1.5.1 System Software .....	16
1.5.2 Application Software .....	17
1.6 Exploring an Operating System.....	20
1.6.1 Types of Operating System.....	21
1.6.2 Functions of Operating System.....	21
1.7 Exploring Features of Windows OS.....	26
1.7.1 Graphical User Interface .....	26
1.8 Tools of windows operating system.....	29
1.8.1 Desktop Gadget Gallery .....	29
1.8.2 Performance Improvements.....	30
1.9 Commands of Windows operating system.....	31
1.10 Summary.....	32
1.11 Key Terms.....	32
1.12 Exercise .....	33
Multiple Choice Questions.....	33
Short Answers Type Questions.....	34

<b>Chapter 2: Getting Started with Word 2010.....</b>	<b>35</b>
2.1 Introduction.....	36
2.2 History of Microsoft Word .....	36
2.2.1 Exploring New Features of Microsoft Word 2010.....	37
2.3 Starting and Quitting Word 2010.....	38
2.3.1 Starting Word 2010.....	38
2.3.2 Quitting Word 2010.....	39
2.4 Exploring Word 2010 Interface Features .....	40
2.4.1 Exploring the Common Features of MS Word application .....	41
2.5 Creating, Saving, Opening, and Closing a Word Document.....	44
2.5.1 Creating a New Document.....	44
2.5.2 Saving the Document .....	47
2.5.3 Opening an Existing Document.....	51
2.5.4 Closing the Document.....	53
2.6 Summary .....	54
2.7 Key Terms.....	54
2.8 Exercise.....	54
Multiple Choice Questions.....	54
Short Answer Type Questions.....	56
<b>Chapter 3: Getting Started With Excel 2010 .....</b>	<b>57</b>
3.1 Introduction.....	58
3.2 Exploring New and Enhanced Features of Excel 2010 .....	58
3.2.1 Starting Microsoft Excel 2010.....	59
3.2.2 Introduction to Excel 2010 UI.....	61
3.3 Exploring the Ribbon.....	65
3.3.1 Customizing the Ribbon.....	72
3.3.2 Exploring the Excel Options Dialog Box.....	77
3.4 Closing a Workbook and Quitting Microsoft Excel 2010 Application.....	78
3.5 Summary.....	80
3.6 Key Terms.....	80
3.7 Exercises .....	81
Multiple Choice Questions.....	81
Short Answer Type Questions.....	82
<b>Chapter 4: Working with Microsoft PowerPoint 2010.....</b>	<b>83</b>
4.1 Introduction.....	84
4.2 Exploring Microsoft PowerPoint 2010 Features .....	84
4.3 Exploring Microsoft PowerPoint 2010 Interface.....	85
4.4 Basics of the Presentation .....	89
4.4.1 Creating a Presentation using the Blank Template .....	89
4.4.2 Creating a Presentation using an Installed Template .....	90
4.4.3 Inserting a New Slide.....	91

4.4.4	Saving a Presentation .....	91
4.4.5	Closing the Presentation and Quitting PowerPoint.....	92
4.5	Working with an existing presentation .....	92
4.5.1	Adding Text Using a Placeholder .....	92
4.5.2	Adding Current Date and Time.....	93
4.5.3	Adding Slide Number.....	95
4.6	Formatting the Text.....	96
4.6.1	Applying Formatting Features .....	96
4.6.2	Changing Font Type, Font Size, and Font Color of the Text.....	97
4.6.3	Performing Spell Check.....	99
4.6.4	Creating a Bulleted List .....	100
4.6.5	Moving and Deleting Slides.....	102
4.7	Inserting objects in a presentation.....	102
4.7.1	Adding Charts to a Slide.....	103
4.7.2	Working with Clip Arts.....	105
4.7.3	Working with Images.....	108
4.7.4	Inserting a Shape.....	112
4.7.5	Inserting WordArt.....	115
4.7.6	Working with SmartArt Graphics .....	117
4.7.7	Working with Tables .....	121
4.7.8	Adding Videos and Sound Clip.....	123
4.8	Enhancing the presentation.....	126
4.8.1	Working with the Transition Effects.....	127
4.8.2	Working with Animation .....	131
4.9	Summary.....	134
4.10	Key Terms.....	134
4.11	Exercise .....	135
	Multiple Choice Questions.....	135
	Short Type Questions .....	136
<b>Chapter 5:</b>	<b>Microsoft Access 2010 .....</b>	<b>137</b>
5.1	Introduction.....	138
5.2	Introducing a Database .....	138
5.3	Exploring the Database Objects .....	138
5.3.1	Tables .....	139
5.3.2	Forms.....	139
5.3.3	Query .....	140
5.3.4	Report.....	140
5.4	Starting MS Access 2010.....	141
5.5	Creating a Database.....	142
5.5.1	Creating a Database using a Blank Template.....	142
5.5.2	Creating a Database using Sample Templates.....	143

5.6	Opening an Existing Database .....	145
5.7	Exploring the MS Access 2010 User Interface .....	147
5.8	Creating a Table.....	151
5.8.1	Creating a Table in Datasheet View .....	151
5.8.2	Creating a Table in the Design View .....	152
5.8.3	Saving a Table .....	154
5.8.4	Opening a Table in the Design View .....	155
5.9	Working with Fields in a Table.....	156
5.9.1	Inserting a New Field.....	157
5.9.2	Deleting a Field.....	158
5.10	Understanding Data Types .....	158
5.11	Working with Records in a Table.....	159
5.11.1	Entering the records in a table .....	159
5.11.2	Editing Records in a Table .....	160
5.11.3	Selecting a Record (Single or multiple).....	160
5.11.4	Deleting a Record .....	161
5.12	Understanding the Concept of Creating Relationship between Tables .....	161
5.12.1	Setting the Primary Key .....	162
5.12.2	Removing a Primary key .....	163
5.12.3	Creating Relationships between Two Tables.....	163
5.13	Closing a Database and Quitting MS Access 2010.....	166
5.14	Summary.....	166
5.15	Key Terms.....	166
5.16	Exercise .....	167
	Multiple Choice Questions.....	167
	Short Answer Type Questions.....	168
<b>Chapter 6: Introduction to Networking .....</b>		<b>169</b>
6.1	Introduction.....	170
6.2	Understanding the Basics of Networking.....	170
6.3	Need for Networking.....	171
6.3.1	Exploring the Benefits of Networking.....	171
6.3.2	Disadvantages of Computer Networks .....	173
6.4	Basic Components of a Network.....	174
6.5	Exploring the Types of Networks.....	175
6.5.1	Local Area Network .....	175
6.5.2	Wide Area Network.....	176
6.5.3	Metropolitan Area Network.....	176
6.6	Characteristics of Networks .....	178
6.6.1	Architectural Model .....	178
6.6.2	Network Topologies .....	178
6.6.3	Protocols .....	182

6.7	Hardware and Software Used for Networking .....	182
6.7.1	Networking Cables .....	182
6.7.2	Networking Devices.....	184
6.7.3	Network Interface Card.....	186
6.7.4	Protocols .....	186
6.8	Security .....	187
6.8.1	Virus and Its Types .....	188
6.8.2	Antivirus .....	188
6.8.3	Firewall .....	189
6.9	Internet.....	189
6.9.1	Functioning of Network.....	189
6.9.2	Internet Protocols.....	190
6.9.3	World Wide Web(WWW).....	191
6.9.4	HyperText Transfer Protocol (HTTP).....	191
6.9.5	File Transfer protocol (FTP) .....	191
6.9.6	Telnet and Gopher.....	192
6.9.7	IP addresses.....	192
6.9.8	Internet Service Provider (ISP) .....	192
6.9.9	Uniform Resource Locator (URL) .....	192
6.9.10	Domain Name System(DNS).....	193
6.9.11	E-mail.....	195
6.9.12	Web browser .....	195
6.9.13	Surfing and Searching.....	195
6.9.14	Search engines.....	195
6.9.15	Uploading and Downloading from Internet .....	196
6.9.16	Applications of Information Technology (IT).....	196
6.10	Summary .....	198
6.11	Key Terms.....	198
6.12	Exercise.....	199
	Multiple Choice Questions.....	199
	Short Answer Type Questions.....	200
<b>Chapter 7: Introduction to Management Information System.....</b>		<b>201</b>
7.1	Introduction.....	202
7.2	Concept of Information System (IS).....	202
7.2.1	Computer Literacy and IS Literacy.....	203
7.2.2	IS Components .....	203
7.2.3	Trends in IS .....	204
7.2.4	Classification of IS.....	206
7.2.5	Framework of IS in an Organization.....	207
7.2.6	IS and Business Organization .....	208
7.2.7	Human Body as an Information System.....	208
7.2.8	IS Failures and Causes.....	209

7.3	Management Information System (MIS).....	210
7.3.1	Nature and Scope of MIS.....	211
7.3.2	Characteristics of MIS.....	211
7.3.3	Need of MIS.....	211
7.3.4	Role of MIS.....	211
7.3.5	Functions of MIS.....	212
7.3.6	Adopting MIS in Organizations.....	213
7.3.7	Future of MIS.....	213
7.4	Structure of MIS.....	214
7.4.1	Physical Components.....	214
7.4.2	Information Processing.....	214
7.4.3	Management Functions.....	215
7.4.4	Decision Support.....	215
7.5	Summary.....	216
7.6	Key Terms.....	217
7.7	Exercise.....	217
	Multiple Choice Questions.....	217
	Short Answer Type Questions.....	218

**Chapter 8: System Development and Design .....219**

8.1	Introduction.....	220
8.2	The System Approach.....	220
8.2.1	The Concept of System.....	221
8.2.2	Characteristics of a System.....	221
8.2.3	Types of Systems.....	221
8.2.4	Elements of a System.....	222
8.2.5	Decomposition and Integration of a System.....	222
8.3	Developing Information System.....	223
8.3.1	Waterfall Model.....	223
8.3.2	Prototyping Approach.....	224
8.3.3	Evolutionary Model.....	225
8.3.4	Spiral Model.....	225
8.3.5	Incremental Model.....	225
8.4	Traditional System Development Lifecycle.....	226
8.4.1	System Investigation.....	226
8.4.2	Prototyping.....	227
8.4.3	Feasibility Analysis.....	227
8.4.4	System Design.....	227
8.4.5	System Testing.....	228
8.4.6	System Implementation.....	228
8.4.7	System Maintenance.....	228
8.4.8	Advantages of SDLC.....	229
8.4.9	Disadvantages of SDLC.....	229

8.5	Concept of System Analysis.....	230
8.5.1	Data Flow Diagram.....	230
8.5.2	Context Diagram .....	231
8.5.3	Data Dictionary .....	232
8.5.4	Entity-relationship Diagram .....	232
8.5.5	System Analyst.....	232
8.6	System Design.....	233
8.6.1	Conceptual Design .....	233
8.6.2	User Interface Design .....	234
8.6.3	Designing Methodology.....	234
8.7	Alternative System Building Methods.....	234
8.7.1	End-User Development .....	235
8.7.2	Outsourcing of System.....	235
8.7.3	Rapid Application Development.....	235
8.7.4	Component-based System Development.....	235
8.8	System Development and Organizational Change.....	236
8.8.1	Business Process Re-engineering .....	236
8.8.2	Restructuring .....	237
8.8.3	System Conversion in Organization.....	237
8.9	Summary.....	238
8.10	Key Terms.....	239
8.11	Exercise .....	239
	Multiple Choice Questions.....	239
	Short Answer Type Questions.....	240
<b>Chapter 9:</b>	<b>Knowledge Management and Artificial Intelligence in Business .....</b>	<b>241</b>
9.1	Introduction.....	242
9.2	Knowledge in Business.....	242
9.2.1	Dimensions of Knowledge .....	243
9.2.2	Knowledge Culture .....	244
9.3	Knowledge Management .....	244
9.3.1	Shift from Information Age to Knowledge Age .....	245
9.3.2	Knowledge Sources .....	245
9.3.3	Knowledge Acquisition.....	245
9.3.4	Knowledge Base.....	246
9.4	Knowledge Support System .....	246
9.4.1	Types of KSS .....	247
9.4.2	Scope of KSS .....	247
9.4.3	Knowledge Network.....	248
9.5	Knowledge Worker.....	248

9.6	Strategic Advantage with Knowledge Management .....	248
9.6.1	Knowledge Creating Company .....	248
9.6.2	Learning Organization .....	249
9.6.3	Value Chain with KSS .....	249
9.7	Protection of Corporate Knowledge .....	250
9.8	Concept of Intelligence.....	250
9.9	Artificial Intelligence .....	250
9.10	Evolution of Artificial Intelligence .....	251
9.11	Applications of Artificial Intelligence .....	252
9.11.1	Applications in Computational Ability .....	252
9.11.2	Applications in Cognitive Science .....	252
9.11.3	Applications in Robotics .....	253
9.11.4	Applications in User Interface.....	253
9.12	Generating Artificial Intelligence .....	253
9.12.1	Neural Network.....	253
9.12.2	Fuzzy Logic.....	253
9.12.3	Fuzzy Control Systems .....	254
9.12.4	Generic Algorithms .....	254
9.12.5	Virtual Reality.....	254
9.12.6	Intelligent Agents.....	255
9.13	Expert Systems.....	255
9.14	Cross Functional Information System.....	256
9.15	Swarm Intelligence (SI) .....	256
9.16	Summary .....	257
9.17	Key Terms .....	258
9.18	Exercise .....	258
	Multiple Choice Questions.....	258
	Short Answer Type Questions.....	260

**Chapter 10: Information System Security and Control.....261**

10.1	Introduction.....	262
10.2	Ethical Aspects in Information Technology .....	262
10.2.1	Business Ethics in Information Technology.....	263
10.2.2	Social Ethics in Information Technology .....	263
10.2.3	Technological Ethics in Information Technology.....	264
10.3	Importance of Ethics in IT .....	264
10.4	Achieving Ethics in IT.....	264
10.4.1	Privacy .....	265
10.4.2	Control .....	266
10.4.3	Security.....	266
10.5	Ethical Challenges of IT.....	266
10.5.1	Cyber Crime .....	267
10.5.2	Hacking .....	267



10.5.3	Cyber Theft .....	268
10.5.4	Unauthorized Usage.....	268
10.5.5	Software Piracy .....	268
10.5.6	Piracy of Other Intellectual Property .....	269
10.5.7	Viruses and Worms .....	269
10.5.8	Social Engineering and Phishing.....	269
10.6	Security Management and Control.....	270
10.6.1	Internet-worked Security .....	271
10.6.2	Virus Protection .....	272
10.6.3	E-mail Monitoring.....	272
10.6.4	Other Security Issues.....	272
10.7	Management of Risks.....	273
10.8	Requirement of Regulatory System .....	274
10.8.1	Security Policy.....	274
10.8.2	Legal Actions.....	275
10.9	Enterprise Resource Planning (ERP) System.....	277
10.10	Customer Relationship Management (CRM) System.....	277
10.11	Supply Chain Management (SCM) System.....	278
10.12	Summary.....	280
10.13	Key Terms.....	280
10.14	Exercise .....	280
	Multiple Choice Questions.....	280
	Short Answer Type Questions.....	282
	<b>Glossary.....</b>	<b>283</b>
	<b>Index .....</b>	<b>287</b>

