**Contents**

**Content of the textbook and short work schedule 4**

**General aspects regarding sound programming code and techniques 7**

Programming from first principles 7

Teaching tips and notes 7

**Chapter 1: User-defined objects 9**

Grade 11 topics/content which should be revised 9

CAPS topics covered 9

**Chapter 2: Database processing and maintenance using linked tables 30**

Grade 11 topics/content which should be revised 30

CAPS topics covered 30

Terminology 31

Concepts to emphasize 31

Teaching tips 32

Comments regarding activities 33

**Chapter 3: Arrays 34**

Grade 11 topics/content which should be revised 34

CAPS topics covered 34

Inserting an element in a specific position in the array 35

The program inserts an element in a specific position in the array 36

Removing an element from an array 36

Removing duplicate elements from an array 37

Obtaining the intersection of two arrays 38

Merging elements of arrays 39

Two-dimensional arrays 40

**Chapter 4: Database processing using SQL 43**

CAPS topics covered 43

Grade 11 topics/content which will be reinforced 44

Overview of chapter 44

Concepts to emphasize 44

Teaching tips 45

Useful tips and reminders 46

Solutions to written activities 46

**Chapter 5: Database maintenance using SQL 49**

CAPS topics covered 49

Overview of chapter 49

Concepts to emphasize 49

Teaching tips 50

Solutions to written activities 51

**Chapter 6: Integrated activities 55**

CAPS topics covered 55

Overview of this chapter 55

Comments regarding activities 55

Appendix A: Key concepts revisited 56

Appendix B: Databases used 56

Appendix C: Quick reference to useful features 56