WORKED SOLUTIONS

Worked Solutions for CSEC® Examinations 2012-2016

Mathematics

GENERAL PROFICIENCY

Derek McMonagle

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WORKED SOLUTIONS
FOR CSEC® EXAMINATIONS
2012–2016

Mathematics

DEREK MCMONAGLE

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1 INTRODUCTION

What is this book about?

This book is your companion to the Caribbean Examinations Council (CXC) Secondary Education Certificate examination in Mathematics at General Proficiency level.

It contains five sets of 60 multiple choice questions similar to those that will appear on Mathematics Paper 01, together with answers to these questions.

It also contains complete answers to the questions set on the Mathematics Paper 02 in the June series of examinations between the years 2012 and 2016.

In addition to the answer to each question, an appropriate explanation is given, so you don't just get the right answer; more importantly, you can see how it has been worked out. There is also an indication of how the marks are distributed, so you can see how you might get partial credit for an answer even if it isn't totally correct.

How can I use this book?

This book is designed to help you to increase your knowledge of mathematics and improve your chances of success in your forthcoming examination.

One of the best ways for you to find out exactly what you know (or don't know) and how well you can organise your knowledge is to try to answer actual examination questions taken from past papers.

In addition to examination questions, there is a chapter on how to revise. This will help you to draw up a revision timetable, and show you how to stay focused on what you have to do. The chapter also includes tips from experienced examiners on how to avoid throwing away marks by making silly mistakes and how to squeeze out those few extra marks by writing down what you know in the clearest possible way. Those few extra marks just might earn you a higher grade.

This book is a very flexible revision aid and you can use it in different ways depending on what best suits your revision programme.

At the end of your revision programme you could simply try to answer the questions on the examination papers to check how much mathematics you know by comparing your answers with those in this book.

However, this book allows you to make far better use of the examination questions as an actual part of your revision programme.

At the back of the book there is a **Table of Topics from the Mathematics Syllabus**.

This is a list of short topics which together cover the entire content of the Mathematics syllabus. Alongside each topic there is a list of questions about that topic that appear in the multiple choice tests and in the 2012–2016 examination papers.

- A hard and daunting task, like revising for your mathematics examination, is often made easier by breaking it down into smaller parts. You may decide to organise your revision programme topic by topic and test yourself at the end of each topic. Each time you complete a topic you will have the satisfaction of knowing a little more, and that will give you the confidence to carry on with your studies.

- You may be having trouble with particular topics. You can use the topic list to identify the questions about these topics very easily and concentrate your time on them. This might be useful at the end of your revision when time is short.

After completing the questions, you might like to compare your marks with the grade indicators provided by the examination board. This will give you some idea of what grade you are likely to get in your forthcoming examination.

There is far more to this book than simply providing a set of correct answers. Read the explanation given for each question carefully, even if you got the question correct. It will help you to organise your answers in order to get all of the marks available. You will be able to apply much of the advice given on examination technique and organisation when you come to answer the questions in your examination.

3 MATHEMATICS – PAPER 01 – MULTIPLE CHOICE QUESTIONS

The questions in this section are not taken from actual examination papers because these are not available to the public. However, they are similar questions based on the curriculum content and examination style adopted in the General Proficiency Examination.

The number of questions given over to each topic in a test reflects the content stated in the curriculum document.

Topic	Number of questions
Sets	4
Relations, Functions and Graphs	6
Computation	6
Number Theory	4
Measurement	8
Consumer Arithmetic	8
Statistics	6
Algebra	9
Geometry	9
Total	60

Paper 01: Test A

1. The next number in the sequence 4, 6, 10, 16, 24 is

A 30

B 32

C 34

D 36

2. The fraction $\frac{7}{8}$ written as a decimal is

A 0.750

B 0.825

C 0.850

D 0.875

3. The number 17.365 correct to two decimal places is

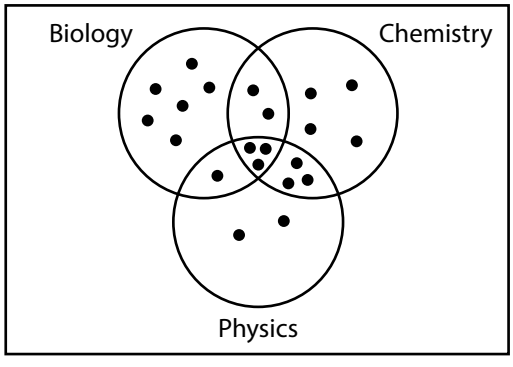
A 17.31

B 17.36

C 17.37

D 17.40

Use the following diagram to answer questions 4 and 5.



In the Venn diagram a dot (•) represents one pupil. The diagram shows the pupils in a form who are studying CAPE sciences.

4. How many pupils are studying biology?

A 6

B 7

C 9

D 12

5. How many pupils study only one of the sciences?

A 2

B 4

C 6

D 12

6. If P = {2,4,8}, Q = {3,6,9} and R = {1,2,3} then $(P \cup Q) \cap R =$

A {2,3}

B {1,2,3}

C {1,2,3,4,6,8,9}

D { }