

MCQs in Pharmaceutical Calculations

Ryan F. Donnelly (Ed.) and Johanne Barry (Ed.)

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This text is intended for pharmacy students and pharmacists who are interested or required to improve their mathematical skills. The authors feel that since performing mathematical calculations are part of a pharmacist's daily routine, there is a need to increase the confidence and competency in the area. Attaining and maintaining a high degree of mathematical competency is critical to a pharmacist's practice because significant consequences, e.g., death of a patient due to overdose of a medication, can result from miscalculations of the required dose. This book aims to increase the competence and confidence of its readers, as well as decrease the reliance on calculators, through the posed questions and practice problems on various pharmaceutical calculations.

This book contains questions and their respective solutions, divided into five categories (i.e., manipulation of formulae and dilutions, dosing, pharmacokinetics, formulation and dispensing, and pharmaceutical chemistry). The authors have designed questions that are commonly encountered by pharmacists. The practice questions are set at an appropriate level of difficulty and most questions can be solved without a calculator. The necessary formulae are given in the questions. There are several small tests at the end of the book, with combinations of questions from different categories, for readers to test their knowledge and skills. The authors make it clear that this book is not intended to be used as a reference. It is purely a compilation of practice questions. The authors refer the readers to other textbooks for full explanation of concepts. However, they put a good effort in showing all the steps involved in the solution of each question. The text would have benefited from additional questions related to concepts such as significant figures and the least measurable quantity, an important concept in compounding.

In general, the book is well written with some minor spelling errors. Abbreviations are clearly defined. However, trade names of some medications are used without mentioning the corresponding generic names. This may decrease

the international appeal of this book, since different trade names may be used in different countries.

In summary, this is a useful text for students and pharmacists looking for additional practices and opportunities to sharpen their mathematical skills. The questions in this book are relevant to daily practice, both in the community as well as the institutional settings. It would also be useful as a supplementary teaching tool for instructors.

The book is 21.5X14 cm and has 210 pages.

Wilson Cheng, Faculty of Pharmacy and Pharmaceutical Sciences, and Pediatrics Oncology, Stollery Children's / University of Alberta Hospital Edmonton, Alberta, Canada.

Email: wcheng@pharmacy.ualberta.ca