BOOK REVIEWS

Annotated multiple choice questions

*Blackwell Science Asia, 54 University Street, PO Box 378, Carlton South, Victoria 3053, Australia*
*A$79.95, pp 412, ISBN 0 86793 377 1*

This book contains more than 600 multiple choice questions that cover medicine, surgery, paediatrics, obstetrics and gynaecology, psychiatry, general practice, laboratory tests, and diagnostic imaging. There are usually five responses to each question. For some questions, there is only one correct response; for others, there are several correct answers. There is short commentary accompanying each question. There is also a section on eponyms at the end which makes fascinating reading and may be useful to honours candidates.

The remarkable thing about this book is that it is written by a panel of examiners for the Australian Medical Council Examination. The questions were selected from their pool of examination questions and are thus carefully thought out, unambiguous, and, above all, authentic. The book is primarily aimed at doctors who have trained outside Australia and who are applying for registration in Australia—they will find it indispensable. Not surprisingly, some of the questions reflect the pattern of disease and medical practice in Australia. For example, sarcoidosis and inflammatory bowel disease receive coverage, but nasopharyngeal and oesophageal carcinoma do not. I do not think this is a drawback: this book can be confidently recommended to undergraduates in Hong Kong who are preparing for finals, and to graduates preparing for qualifying examinations in other countries.

The questions are nearly all clinically relevant and the knowledge sought is usually fundamental to good medical practice. There are rarely any questions on obscure topics and the overall emphasis is not on factual recall of knowledge from textbooks. Many questions are prefaced by a short case history, which gives a contemporary feel to the questions. Anyone who ploughs through these questions diligently will be rewarded by a sound grasp of the basics of modern medicine. The book is beautifully laid out and, although it contains more than 400 pages, it will fit into the pocket of a white coat. It costs nearly A$80 which, regrettably, may make it slightly beyond the budget of students.

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Antibiotics in laboratory medicine, fourth edition

*Ed: Lorian V*
*Williams & Wilkins Asia-Pacific Ltd., Room 808, Metroplaza Tower 2, 223 Hing Fong Road, New Territories, Hong Kong*
*HK$1696.50, pp 1238, ISBN 0 683 05169 5*

There are 19 chapters in this book. Chapters 1 to 6 list different methods of antimicrobial susceptibility testing of rapidly growing bacteria (chapters 1 and 2), anaerobes (chapter 3), mycobacteria (chapter 4), fungi (chapter 5), and atypical organisms (chapter 6) such as chlamydiae, mycoplasmas, *Rickettsia*, and spirochaetes. Susceptibility testing guidelines follow those recommended by the National Committee of Clinical Laboratory Standards of the United States. Some chapters also include methods of assays of antimicrobial activities in body fluids although there is a separate chapter (chapter 7) on this topic. Although most laboratories would not perform susceptibility testing on atypical organisms (especially those that require tissue culture or in vivo techniques for growth), chapter 6 is important, especially for those who work in localities where emerging resistance is a problem among these organisms.

Every step and technical detail of each method are given so that even a novice in the field can follow the protocols and perform the tests successfully. Background information on the antibiotics (including
mechanisms of action in some chapters), theoretical aspects of the techniques, and suggested antibiotics for testing against different micro-organisms are given. Other aspects of antimicrobial susceptibility testing, such as the measurement of drugs in different body fluids, postantibiotic effect, and effects of combining antibiotics, are presented in chapters 7, 8, and 9, respectively. Again, although these tests might not be performed in a routine laboratory, they are extremely useful in a research laboratory where staff are engaged in the study of antimicrobial agents.

Electron micrographs of bacteria before and after exposure to antibiotics can be found in chapter 10. The genetic and biochemical mechanisms of bacterial resistance to drugs (other than to the $\beta$-lactams), including protocols that allow investigation of the mechanisms, are detailed in chapter 11. Chapter 12 gives an extensive review of $\beta$-lactam antibiotics and contains protocols allowing the investigation of the mechanism of $\beta$-lactam resistance, particularly the characterisation of $\beta$-lactamases. Chapter 13 gives a summary of the mechanisms of action of other antimicrobial agents. Chapter 14 evaluates the activity of different antimicrobial agents in experimental animal models to allow the study of infection. Chapter 15 presents methods of preparation of antibiotic discs and other devices that contain antibiotics. This information would be extremely useful for small laboratories with a tight budget.

As most antibiotics are concentrated and excreted in the urine, a chapter (chapter 16) has been devoted to the various aspects of the activity of antibiotics in the urine. Chapter 17 attempts to answer the question of the correlation of in vitro susceptibility test results and the success of antimicrobial therapy, and is a handy source of reference for microbiologists who need to explain the usefulness of antibiotic susceptibility testing to their medical colleagues. Chapter 18 presents data on the distribution of antimicrobial agents in different body compartments, and the book ends with a chapter on antibiotic susceptibility data of different bacterial species. This last chapter provides information on the activity of an extensive list of antibiotics.

The book is extremely useful and practical for microbiologists who are involved in the daily routine of antimicrobial susceptibility testing. It is very informative and has tables on the pharmacokinetics, molecular formulae, molecular weights, and names and addresses of drug manufacturers (chapter 15). It is also very easy to read.

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Introduction to immunocytochemistry, second edition

By: Polak JM, Van Noorden S

BIOS Scientific Publishers/Springer-Verlag Singapore Pte Ltd., #04-01 Cencon I, 1 Tannery Road, Singapore 347719
US$24.50, pp 141, ISBN 981 3083 35 2

The authors of Introduction to Immunocytochemistry are well known in the field of immunolabelling and have extensive experience in the area of endocrine pathology. The first edition of this book was published in 1984 (reprinted in 1987) as an expansion of notes that were provided during practical courses conducted at the Hammersmith Hospital and Royal Postgraduate Medical School in London. Because of the rapid progress in immunohistochemistry, this 1997 edition was extensively rewritten to incorporate all the important advancements and changes in the past 10 years, such as heat-induced antigen retrieval and tyramine signal amplification.

The book is very readable and comprises 11 chapters that cover various aspects of antibody production, tissue fixation and immunolabelling, enhancement methods, multiple immunostaining, post-embedding immunolabelling for transmission electron microscopy, in vitro methods for testing antigen-antibody reactions, and applications of immunocytochemistry and microscopy. While some aspects are covered only very briefly, this book is directed at the newcomer and really represents an expansion of what is provided in the opening chapters of several standard textbooks in applied immunohistology. In this regard, the term ‘immunocytochemistry’ used in this book is somewhat dated, as other terms such as ‘immunohistochemistry’ and ‘immunohistology’ serve better to emphasise a major property of the technique as an extension of morphological examination that allows correlation of cell marker and function with histology—cytology is only a smaller component of its applications.
Multiple choice questions are criticized for testing the superficial recall of knowledge. You can go beyond this by asking learners to interpret facts, evaluate situations, explain cause and effect, make inferences, and predict results. Rule #2: Use simple sentence structure and precise wording. When your test is written, go through and reorder where the correct answers are placed, if necessary. Rule #8: Keep the number of options consistent. Did you ever have to convince a SME that he or she cannot have answer choices that go to “a” and “c” in one question and “b” and “c” in the next? It’s something of a user interface issue. Making the number of options consistent from question to question helps learners know what to expect. Multiple choice questions offer an effective way of diagnostically assessing a learner’s understanding and recall for a specific subject. Here are some other tips to help you: Keep the questions simple. Eliminate those words that may be distracting or confusing. Carefully revise and review the questions to eliminate word repeats. When to Consider Professional Help. The tips outlined in this article are meant to help with writing good multiple-choice questions. However, it is understandable if you need assistance. One situation in which it would be appropriate to consider assistance from professionals is when you doubt your ability to create an effective and consistent question.