

## BOOK REVIEWS

I. HUMAN PHYSIOLOGY - REVISED AND EDITED by O.C.J. Lippold and F.R. Winton (7th Edition) Churchill Livingstone, Edinburgh, London & New York, 1979, p.p. 1-514 (distributed in India by B.I. Publications, 359, Dr. D. N. Road, Bombay - 400 023, price Rs. 184.00).

The original book was written by Leonard Bayliss and F. R. Winton about fifty years ago and has since seen a number of revisions. Leonard Bayliss having died, O.C.J. Lippold of the University College London has been coopted to make the editorial team. The new team has done an excellent job in giving the celebrated volume a new attractive look.

The book comprises eighty chapters grouped under six sections i.e. (1) Specialized Cells and Tissues, (ii) The Cellular Environment and its Control (iii) System for Transport in the Body, (iv) Information: Its Reception and Processing (v) Growth & Reproductive Physiology and (vi) Compensatory Adjustments and Reactions to Injury. The first section introduces in a span of about a hundred pages topics like cell physiology membrane transport, various specialised cells and tissues like nervous tissue, skeletal cardiac and smooth muscle and their functions. Composition and transport functions of blood are also introduced in this very section. The next 100 or so pages i.e. the second section, deal with body fluids, their composition, formation and distribution alongwith control mechanisms of volume and acid-base regulation. The autonomic nervous system, physiology of various endocrine organs, transport mechanisms of endocrine secretion and control of body temperature are also dealt with in this section. This section gives a precise definition of internal environment and its regulation through various types of controls. The theory and operation of control systems are adequately and crisply dealt with in the two chapters which introduce this section. The third section deals with the system of blood circulation with adequate knowledge on the functions and control of heart and blood vessels, the respiratory system with usual chapters on mechanics, lung volumes ventilation and diffusion, regulation of breathing, etc. The digestive system, metabolism and nutrition are also included in this section. The fourth section titled Information: Its Reception and Processing deals with special and general senses and central nervous system. The fifth section comprising nine chapters deals with various aspects of physiology of growth and reproduction. A very valuable section is the sixth one which includes small chapters giving precise knowledge on topics like defence reactions, blood coagulation, blood groups, pathophysiology of shock, high blood pressure, hepatic failure, physiological tremors, transplantation, pain mechanisms

and so on. These chapters deal with the physiological functions and their derangements from the holistic point of view. The subject matter is so dealt as to bring into focus the important underlying mechanisms.

The organization of this text book makes a departure from the usual organ-system approach adopted in many text-books. Here the physico-chemical principles underlying the functioning of various cells and tissues in a complex organism like man have been dealt first providing definitive knowledge based on the cells and tissues themselves thus doing away with the superfluous material that should find a place only in books of physics and chemistry. The organ-system approach then takes off from this base of fundamental knowledge. Although concise chapters on well-circumscribed themes rendered in beautiful and precise language are the characteristics that run throughout the book, perhaps the best organized part is the second section which brings out the homeostatic aspects of a living organism with a clarity and precision of language hitherto not found in ordinary text books. Section five and section six also have introductory pages which bring out the perspectives of the material that follows. Addition of one or two such introductory pages at the beginning each of the rest of sections will further enhance the value of the book. This is notwithstanding the prologue and epilogue of the book which of course should continue to perform their respective function of introducing and concluding the physiological thought so elegantly compiled in this book.

All to all it is one of the finest text books that has come on the scene of education in medical physiology and can be recommended strongly to the teachers and students alike. There is however, one reservation and that is its price. Who will pay a sum of Rs. 184.00 to purchase a copy? Nevertheless, let every library acquire a few copies of this precious book.

II. MULTIPLE CHOICE QUESTIONS IN PHYSIOLOGY by L. Bindman, B. Jewell and L. Smaje, Edward Arnold, London, 1979 pp. 1-64 (Distributed in India by B. I. Publications, 359 Dr. D. N. Road, Bombay-400 023, Price £ 1.50).

This is a collection of 100 multiple choice questions aimed at getting true or false responses compiled by teachers of physiology in the University College, London. The nine sections cover blood, cardiovascular system, respiration, water balance and kidney, gastrointestinal tract, endocrines, membrane biophysics autonomic nervous system and muscle. The central nervous system and special senses do not find any representation in this booklet because in the University College, London, there is a separate department of Neuro-Sciences.

Educational technologists recommend many formats of MCQs. Some of these formats were discussed in the sessions on evaluation in the Workshop on Laboratory Teaching in Physiology held at the All India Institute of Medical Sciences. The booklet however, gives only one type of format. Still it would be of some use to the teachers to provide ideas for creating their own questions. I am not sure if the students would like to acquire a copy of this booklet by spending a sum of Rs. 26.00 or so. Recommended for libraries.

## XXVIII INTERNATIONAL CONGRESS OF PHYSIOLOGICAL SCIENCES

As you already know the XXVIII International Congress of Physiological Sciences is scheduled at Budapest, Hungary from 13th to 19th July, 1980. The announcement of the Congress has been published in the "Physicologists"; Acta Physiologica Hungarica and Acta Medica Hungarica, as well as, various other journals related to physiological sciences. In addition those who sent intimation for the initial registration to the following address have also been provided with the preliminary announcement by the secretariat of the Congress. The members are reminded that following dead-lines are scheduled to be met by the Congress Secretariat. The registered individuals shall receive the final announcement by about the end of November, 1979. But others can also ask for this if they so desire. The final registration, remittance of registration fees, submission of abstracts, hotel registration and application for financial support to be done by 31st December, 1979. The applicants shall receive the confirmations by April 30, 1980. If you are interested in the participation for this Congress or if you want to get some additional information you may please write to the Secretariat of the Congress. The Head-office is also likely to receive some copies of the final announcement and in case you want, the Head-office of APPI to send the request on your behalf, you may please inform the Secretary at your earliest.

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Applications are invited in prescribed form available from the *Director Research* for grant-in-aid for *ten research fellowships* (8 in modern medicine and 2 in Ayurvedic and allied Sciences) upto Rs. 10,000/- each, for carrying out research on any of the problems likely to be solved in one year in the field of medicine in institutions having adequate clinical, laboratory and other facilities for conducting research.

**Last date for receiving applications — 31st December, 1979.**

**Medical Research Centre  
Bombay Hospital Trust,  
Bombay-400 020**

**Director-Research**