ATM Fundamentals. N. N. Biswas. Adventure Books, 332/A, 2nd Cross, RMV II Stage, II Block, Bangalore 560 094. India, 1998. 181 pp. Price: Rs 118.

Written as a textbook for an introductory course on ATM, this book covers the fundamental concepts of ATM and various switching architectures of ATM switches. The coverage is comprehensive, including various non-blocking path allocation algorithms in various switch architectures. The coverage is up-to-date, reflecting the most recent technical developments and implementation approaches.

The presentation of theorems supported by rigorous proofs and examples makes this not only a text book for college students but also a useful reference handbook for the professionals who are involved in the basic research of implementation of various ATM switch algorithms.

The orientation of the topics in this book is in such a way that the author first introduces the ATM concepts and various path allocation algorithms used in switch fabrics in a simpler way before discussing various switch architectures. The first two chapters provide a comprehensive insight into ATM networking concepts. Various adaptation layers are presented in a brief manner. Chapter 3 deals with various switch fabrics used in ATM switches and the Link allocation algorithm used in strict sense non-blocking CLOS networks substantiated with examples. Chapter 4 describes various types of rearrangeable network architectures and the associated non-blocking path allocation algorithms with various steps listed with suitable examples. Chapter 5 summarizes the latest ATM switch architectures presented in various technical journals. The appendices include lists of programs for the various algorithms presented in this book.

Although this book has not covered various ATM traffic/call-related topics, the topics covered are well suited for the beginners in this area and are enjoyable. It is highly recommended to use this book as a good reference for the college students as well as network professionals, as it provides many specific examples and contains pointers to various literatures for further information.

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Will Science Come to an End. N. S. Prasad. Allied Publishers Limited, 13/14, Asaf Ali Road, New Delhi 110 002, India. 1998. xxxv+259 pp. Price not known.

Pure science has come of age but the forecasts for its future involve two opposing views. While some believe that science is open-ended with exciting phenomena yet to unfold, others see its end in sight. Thus gauge theorists dream of a final theory of matter and energy, some cosmologists claim that they are on the verge of understanding how and why the universe was created. In the realm of life science, the evolutionary biologists, after Darwin and DNA and stepwise evolution with punctuated equilibrium for some time, are still far from a final understanding of the origin of life and the prime problem of brain and consciousness. In the recent decades, the science of chaos and complexity has grown with the hope that with supercomputers and novel mathematical methods it will provide answers to all problems of society, environment, economics, information and many other areas.

It is in the field of physics, particularly theoretical physics, that the practitioners feel that they are almost there. The problem which has defied solution so far is the marriage of quantum mechanics and general theory of relativity, in short, quantum gravity. The miracle is hoped to happen in the superstring theory or its recent version the M-theory. According to superstring theory, the existence of gravity is an imperative, thus providing one of the greatest theoretical insights. The sequential discoveries are general relativity, quantum field theory, superstrings and supersymmetry. Ed Witten considers these four ideas having remarkable elegance and beauty. There is another approach to superunification. This involves a unified model of space–time, matter–energy and cognition–consciousness. Already in higher dimensional geometry (gravity) and at a very high energy scale of the order of 10^{18} GeV, geometry and matter become interconvertible. This is in keeping with Einstein's assertion that 'geometry (of space) is a physical entity much like matter'.

Thus the end of theoretical physics is not immediate. It will stretch along to the next century. Of course, the science of the next century will be dominated by life science and the profound problem of consciousness.

Let us now turn to the book under review. The author attempts to describe at a popular level, classical mechanics, thermodynamics, electromagnetism, relativity, quantum mechanics and grand unified theories. He also discusses evolutionary biology, earth science, cosmology, chaos, catastrophe and information theory. The description is rather pedestrian, lacking depth and critical evaluation of the fields.

Only in the end he comes to the main theme 'Future of Science', which sooner or later has to meet its end without solving the problem of ultimate reality. The book is good in some parts, in others it lapses into errors both scientifically and linguistically. There are annoying lapses in proof reading. For example, while Roger Penrose becomes Rose Pen Rose, Rene Thom is transformed to Renethome, Bohr becomes Bohrs and this is not the end of the list. The term 'it consists of' is legitimate English but there is no 'of' after comprises. The book is full of mistakes such as 'comprises of' or 'comprising of'. The expression for the relative velocity (page 70) is printed wrongly and time dilatation becomes time shrinking (page 71). But the misinformation that is galling to Indian physicists is the statement (page 23) 'Bose, the famous Indian physicist and Nobel Laureate proposed a new statistical model'. It is well known that Bose was never awarded the Nobel Prize which he ought to have received. It is not necessary that one has to be a professional physicist to know such facts. A writer has the responsibility to give factually correct information. He may differ from other scientists as far as the opinions or views on a subject are concerned.

Ironically, the reviewer received the invitation to review this book when he had just finished reading the book, *The End of Science* by John Horgan who had given his views after meeting some of the living greats in various disciplines. John Horgan is not a trained scientist but his critique is very penetrating.

It is difficult to give a blanket approval without suggesting some changes. A few pages of corrections, after carefully noting the printing errors, must be inserted in each copy. With these changes the book may provide reasonably good information to persons interested in broadening their knowledge.

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Water-borne Diseases: The Continuing Challenge. Radhey L. Singhal and O. P. Sood (eds). Ranbaxy Science Foundation, 20, Sector 18, Udyog Vihar, Gurgaon 122 001, India. 1997. 57 pp. Price not known.

Water is the most essential and non-substitutable molecular medium for survival and perpetuation of every life form on earth. The quality and quantity of water available for human consumption is a direct measure of the health of the population and that of the country. In over-populated countries, as in the case of India, the quality of water is abysmally poor due to heavy contamination of soil and water with fecal material, other biological wastes and chemical pollutants.

Because of its essentiality, water is a major vehicle for transmission of most common diseases. Water-borne diseases are of a wide spectrum and are predominantly manifested in the gastrointestinal tract as it is the part of the body that is in direct contact with the ingested contaminated water. Water-borne diseases are caused by a variety of pathogens including bacteria, viruses and parasites and are mostly manifested as acute watery diarrhoea, dysentery and persistent diarrhoea.

Diarrhoeal diseases account for about 3 million deaths throughout the world and India accounts for approximately a third of this tragedy, which is preventable through cost-effective methods such as provision of safe drinking water, safe excreta disposal, environmental sanitation and clean personal habits such as hygienic storage of water and food, hand washing, chlorination and boiling of water. Although oral rehydration therapy is a great success in reducing mortality, improved sanitation and water supply is the most cost-effective choice for solution of the problem. In developing countries, development of vaccines against major enteric pathogens can only be a complementary strategy.

Water-borne diseases of major public health concern include typhoid caused by *Salmonella typhi*, cholera by *Vibrio cholerae*, dysentery by *Shigella*, diarrhoea by protozoan *Giardia*, acute infantile diarrhoea by rotavirus and jaundice by hepatitis A and E viruses. In India, the economic burden due to morbidity and mortality from these diseases is staggering and some of these old and newly-identified diseases still present a grim situation in the country often in epidemic forms. A lot has to be done to eradicate these easily preventable diseases. In this backdrop, Ranbaxy Science Foundation organized a symposium on 'Water Borne Diseases: The Continuing Challenge', as the second in the series of round table conferences to review the experiences of clinicians, scientists and public health professionals in the country and to suggest important guidelines and national approaches that need to be undertaken to reduce the burden of major water-borne infectious diseases. This volume is a compilation of the proceedings of the conference held on 1 August 1997 organized by V. Ramalingaswami, Chairman, Ranbaxy Science Foundation.

The current status on major water-borne diseases in the country is presented by clinicians and scientists who have contributed significantly towards understanding and prevention of these diseases. The overview by M. K. Bhan on disease burden due to various water-borne diseases and their prevalence and mode of transmission and the presentation by V. I. Mathan on the ecology of the gut and diarrhoeal diseases are quite revealing. The presentations on cholera by B. C. Deb, bloody diarrhoeas by S. K. Bhattacharya, typhoid fever by R. Kumar, protozoan diarrhoeas by U. K. Baveja, water-borne viral hepatitis by S. K. Panda and management and prevention of water-borne diseases by K. Suresh should be a source of information on the history, epidemiology, prevention and treatment of the diseases. The presentations are very brief, nevertheless, any reader should be able to understand and appreciate the root cause of the problem of diarrhoeal diseases and undertake preventive as well as curative methods to reduce the burden of these easily preventable diseases. The clear message from this conference is that unless provision of safe drinking water and environmental sanitation is effected by governments in developing countries, these diseases will continue to cause immense suffering, deaths and economic loss and this grim situation to a great extent, can be prevented by promotion of personal hygienic habits.

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Biogeography of the Reptiles of South Asia. Indraneil Das. Krieger Publishing Co., Krieger Drive, Malabar, Florida 32950, USA. 1996. 87 pp. Price: US $30.

I sat up when I heard of a book titled *Biogeography of the Reptiles of South Asia*. Literature on the ecology and biogeography of the herepetofauna of this region is far from adequate, and a publication dealing competently with the biogeographical analysis of the distribution of the region's reptiles is very much needed. And sadly, this elegant-looking book, authored by Indraneil Das, fails to fit the bill.

Though it is creditable that the author has attempted to present a biogeographical resolution of the distribu-