BOOK REVIEWS

A BASIC Computer Programming by N. N. Biswas (Mrs. Reba Biswas, Radiant Books, 511 Palace Upper Orchards, Bangalore 560 080) 1983, pp. 154, Price Rs. 26/-

It is well known that the computer languages were mainly designed for special uses by experts of different fields. As such, most of these languages some what difficult to learn and are difficult to apply. Recognising this difficulty, a new simple language called 'BASIC' was developed. It is quite easy to learn and apply. This language to most of the computing problems arising in both business and scientific applications.

The book under review is intended for beginners who would like to learn BASIC programming. All the preliminary aspects of programming are covered in this book. Examples are given to illustrate different concepts. More problems for practice are also given. The author has concentrated more on the scientific applications of the language rather than on business application. Some of the features of the BASIC language like Integer Variable (ex: A%) PRINT USING, LPRINT, INPUT etc are not presented. However this serves as a preliminary book on BASIC programming.

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Annual Review of Physical Chemistry, by B. S. Rabinovitch, Vol. 35 (Published by Annual Reviews Inc. 4139, El Camino Way, Palo Alto, California, 94306, USA) 1984, pp. x + 733.

The Annual Review of Physical Chemistry for 1984 consists of 24 articles. It begins with an interesting article by Stockmayer and Zimm surveying the development of polymer science during the last 50 years. It is revealing that Raman's suggestion regarding the application of light scattering to colloids and polymer solutions had to be rediscovered independently after a lapse of almost twenty years.

The remaining 23 articles cover various aspects of polymer science (4), Kinetics and photochemistry (9), Solid State and Surface Chemistry (5) and Quantum Chemistry (4). The article on 'Human Effects on the Global Atmosphere' also deals with photochemical & kinetic aspects of various atmospheric reactions. The articles as usual maintain the high standard set up in the previous volumes of the series and will be extremely useful to workers in these areas. However, one cannot miss observing the fact that the choice of the subject matter of the articles gives only lop sided view of the developments in physical chemistry. Many areas of current interest have been ignored altogether. It is hoped that the editors will keep this in view while planning for future volumes.

The book is highly recommended for the university libraries and research institutions.

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Disease in Plants—an Introduction to Agricultural Phytopathology by the late Neil E Stevens and Russell B. Stevens, 1984, Indian Reprint. (Published by International Books and Periodicals Supply Service, 24 B/5, Deshabandhu Gupta Road, Karol Bagh, New Delhi 110 005), pp. 219. Price Rs. 750/-.

The book provides the detailed information needed to supplement the specialized research and teaching interests. The text is highly readable and gives the comprehensive description on nearly all the aspects of plant disease. The book begins with an examination of plants, plant disease and human welfare highlighting world food problem followed by the effect of disease on plants. The next four chapters present elaborated account of casual agents including fungi, bacteria, viruses etc responsible for inciting plant diseases with particular reference to nutritional factors envisaging some of the ways in which injury is caused by the direct effect of unfavourable physical environment. Chapters go on to consider the factors including host, pathogen and their interaction, weather, soil and

insects influencing the development of pathogenic diseases. Salient feature of the book is that an attempt has been made to focus the attention on the variation and physiological specialization in plant pathogens with emphasis on the development and significance of new races. Subsequent chapter explains the introduced hosts and pathogens and the havor they play after their introduction and establishment in the area concerned. The unique feature of the treatise is that the last eight chapters have been attributed to a thorough discussion in respect of the disease control, the menace caused by various agents on the wide variety of host plants throughout the world. These problems include the economy, chemical, seed and soil treatment, their implications with emphasis on sanitation, eradication and development of plant quarantine, its status and conflicting views pertaining to the latter aspect. Breeding for disease resistance—a concept of modern age and market diseases and finally the intricate problems emanating with the plant diseases have been covered extensively. The text has been rightly illustrated with photographs of high quality together with references cited in the end of each chapter and provided with author index plus subject index in the end.

The price of the book particularly for those in developed world is not just high but outright exorbitant. However, the printing and the get up of the book are praiseworthy and the publisher has made the book readily available. He must be congratulated for timely achievement.

The book is valuable for post graduate students, teachers and those who are involved in the area of Plant Pathology and I hope that this would continue to occupy a central place in its subject for years to come.

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Hormonal Regulation of Plant Growth and Development, Vol. 1. (Ed.) S. S. Purohit, (Published by Agro Botanical Publishers (India), Old Ginnani, Bikaner 334 001, 1984, pp. 412, Price Rs. 225/-

This is a compilation of 13 review articles on selected topics on plant growth regulators together with a brief appraisal of the Problems and Perspectives in the subject by the Editor. Most of the articles are

devoted to fundamental aspects and all of them are well covered. The first one on 'The Molecular Basis of Hormone Action' gives the latest information on the subject by pooling the various concepts by different authors. The author S. P. Sen has beautifully summarised the present position in the following words: "An integration of the concepts can only be achieved when we have really understood the individual events in molecular terms so that they can be put together into a meaningful whole. This may take many more years to come but the rate of progress in this field certainly provides enough reasons for us to be hopeful for the future."

The article on "Hormonal Regulation of Flowering" by S. Tanimoto and H. Harada reviews the results of research on short and long day plants. The article on "Hormones in Seed Dormancy and Germination" is well covered, with schematic presentations of the various hypotheses on the subject. The following three topics viz., (1) Hormonal control of Enzyme Secretion by Plant Cells, (2) Hormonal Regulation of Senescence, and (3) Hormonal Regulation of Ion Transport in Plants give a good coverage of the respective fields and are well presented.

The articles on Ethylene in pages 279 to 367 cover various aspects, such as physiology and biochemistry, plant responses to ethylene and related compounds and ethylene in Thigmo-morphogenesis and Tendril Thigmonasty. The ones on Hormonal Regulation of Root Formation is general in nature and is true to the subject.

The article on 'Growth Regulating activity of Penicillin in Higher Plants' by S. S. Purohit and S. Mukherji, 'Hormonal Regulation of the Gravitropic Response in Pulvini of Grass Shoots' by P. B. Kaufman and P. Dayanandan and 'Plant Hormones in Relation to Air Pollution Injury' by H. S. Srivastava cover very narrow fields of specialization, and therefore, stand out as distinctly different in coverage.

On the whole, the articles are of very high scientific quality and presentation. Some of them present high levels of theoretical concepts in the respective fields, which provide 'food for thought' by the specialists in the subjects. It is hoped the forthcoming Volume(s) in the series would cover the other fields of specialization in the subject. There are innumerable printing mistakes in this Volume which could have been easily avoided.

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