

distinctly from *T. acanthobramae* in several aspects. It exhibits pronounced polymorphism, the broad form has evident myonemes in its cytoplasm, the undulating membrane is small and lastly the free portion of flagellum is thin and slightly small.

It seems clear from the above that no known trypanosome corresponds to the present form. It is therefore designated as *Trypanosoma neimavana*.

The author is grateful for the help provided by Dr. C. D. Becker, Battelle, Pacific Northwest Laboratories, U.S.A., for his valuable suggestions and manuscript review.

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July 26, 1976.

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## REVIEWS

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**Mathematical Analysis.** By Professor V. Ganapathy Iyer. (Tata McGraw-Hill Pub. Co. Ltd.), 1977 Pp. 352. Price : Rs. 21.

A good training in real analysis is a must for any student or researcher in mathematics. Though the book under review is meant to provide a basic course in real analysis at the Master's Degree level in Indian Universities, Prof. Iyer seems to have taken pains in designing the course suitable for an active working mathematician also. In fact, copious references mentioned at the end of each chapter well substantiates this aspect.

In the light of his matured experience of a quarter century in teaching and guiding research, Prof. Iyer has rightly observed that a sound knowledge of techniques and results in classical analysis is essential for a proper understanding of the later developments like topology and functional analysis. The learned author further observes "it is my firm conviction that attempts to bypass them or assume them under general results in the later developments lead, at best, to superficial knowledge of these developments".

The different topics of analysis, usually found in different books, are brought together into one volume by the author. An exhaustive treatment is given to Lebesgue measure and integral including

Fubini's theorem. The detailed discussion of infinite series and classical summability methods including Tauberian theorems—generally not given the same attention in many books on analysis—deserves a special mention. The chapters on infinite series and summability methods constitute the second part of the text. The first part includes chapters on the Real Number system, Real valued functions, Lebesgue measure and integral, Riemann–Stieltjes integrals, Cauchy–Lebesgue integrals, Metric spaces, L-spaces and Topological spaces, Fourier series and transforms.

The style of presentation and inclusion of well-chosen illustrations and problems bespeak the sound pedagogical judgement of Prof. Iyer. The author has struck the golden mean between the prolixity of class-room notes and the brevity of advanced texts. His style is crisp and clear, obviously in control of how the subject should be taught.

Prof. Ganapathy Iyer's book is not just one more addition to the list of already existing ones on real analysis by Indian authors. In fact it stands above all its predecessors in that while it has avoided their drawbacks, Prof. Iyer's text provides something positively substantial to a student of analysis.

In conclusion, Prof. Ganapathy Iyer's book has successfully fulfilled the requirements of the students of real analysis in bringing the varied topics of importance in one volume. The reviewer strongly recommends this book to be prescribed as a text in Real Analysis in all our Indian Universities. Inclusion of answers for problems at the end would have increased the usefulness of the book to the students. It is hoped that this minor drawback will be overcome in the next edition.

N. RUDRAIAH.

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**Computational Probability and Simulation.** By Sydney J. Yakowitz. (Addison-Wesley Publishing Company, Reading, Massachusetts), 1977, P.p xvii + 240. Price : \$ 22.50 Hard Binding, \$ 12.50 Paper Binding.

The book on 'Computational Probability and Simulation' by Sidney Yakowitz is a welcome addition. The author's approach to get a grasp of probability theory through computer experimentation has a lot of merit in it. The brief treatment about generation of 'random' numbers on computer, modern concept of randomness by Chaitin and Kolmogorov and cautious notes on using these random numbers are very lucidly and competently handled. The other parts of the book dealing with gambler's ruin, limit theorems, solution of linear equations, even though lucidly handled are quite routine and after reading the first chapter one gets somewhat disappointed to see a very routine treatment by the author. The chapter on Monte Carlo integration is quite elementary, and one would have liked to see many more applications of simulation methodology in a book with an emphasis on the simulation. The book may serve an ideal starting point for those interested in grasping elements of simulation on computer, a rudimentary knowledge of

probability may be necessary even for these readers. They will be greatly helped by working out the illustrative exercises given in the book.

S. DESHPANDE.

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**Physiological Aspects of Crop Nutrition and Resistance.** (Ed.) U. S. Gupta. (Atma Ram and Sons, Delhi), 1977. Pp. 383. Rs. 75.00.

This book is a compilation of ten Chapters written by 14 different authors, each chapter having been written by specialists in the respective branch. The first three chapters deal with basic aspects of Crop Nutrition, describing the ion accumulation, and transport in plants and the nutrient requirements of different field crops. The next three chapters cover the influence of external factors including foliar sprays, soil pH and environmental pollutants on crop growth. The next four chapters deal with adverse environmental conditions including cold injury, water-logging, soil compaction, salinity and sodicity on crop response. The last chapter is written by the Editor. The book written and compiled to pool the latest information on each branch of Plant Physiology has taken a good shape and forms a cogent reading. The Editor needs to be congratulated on this accomplishment. Perhaps the authors have purposely kept at the minimal level the biochemical aspects of Plant Physiology. The various examples given to illustrate the physiological reactions, with reference to plant growth and soil-plant interactions are welcome features of the book. There are a few printing mistakes which could have been avoided. Also, more text figures to illustrate some of the basic aspects of Crop Nutrition and Resistance would have added further to the value of the book.

G. RANGASWAMI.