# Easy Notes For Kanpur University

SPECIAL ELECTRICAL MACHINESFST TCS 2002: Foundations of Software Technology and Theoretical Computer ScienceMathematics IIT JEE Main/Advanced - DPPBotany for Degree Students (For B.Sc. 1st Semester, As per CBCS)A Suitable BoyPlant GenomeThe Wonder that was IndiaLinear Programming and Network FlowsDynamic Models and Control of Biological SystemsBasic and Applied Aspects of BiotechnologyAnalysis IFlow Through Open ChannelsIntroduction to Complex VariablesExaminations in Higher EducationAlgebra and TrigonometrySustainable Energy and EnvironmentLegal Aptitude and Legal Reasoning for the CLAT and LLB ExaminationsBeautifully RuinedA First Course in Design and Analysis of ExperimentsLeading Science and Technology: India Next?Linear Models in StatisticsIntroduction to Differential EquationsResearch MethodologyTHEORY AND METHODS OF SURVEY SAMPLINGRiver of Love in an Age of PollutionTreatise on ThermodynamicsMechanical Engineering NewsAn Introduction to Queueing SystemsASSESSMENT FOR LEARNINGCREATING AN INCLUSIVE SCHOOLExperiments in AdvocacyTrends in Civil Engineering and Challenges for SustainabilityFundamentals of Mathematical StatisticsIntroduction to Basic Manufacturing Process and Workshop TechnologyTHE ART OF MAN MAKING PART IHeat TransferTopology of Metric SpacesHumoral PathologyLecture Notes on Special RelativityB.SC.Chemistry - II (UGC)

## SPECIAL ELECTRICAL MACHINES

Designed to serve as a textbook for students pursuing a BTech or BE program in civil engineering, the book aims to impart a clear understanding of the concepts of open channel hydraulics. The book would also be useful for postgraduate students of civil engineering and practising engineers. Beginning with an introductory chapter that classifies the flow into various categories, Flow Through Open Channels describes uniform flow, gradually varied flow, and rapid varied flow in great detail. The subsequent chapters provide a comprehensive coverage of channel transitions, spartially varied flow, and unsteady flow. A simplified introductory description of important topics such as flow in mobile bed channels and pollutant transport in open channels has also been included in the text. Solved examples with emphasis on numerical or approximate methods have been liberally used to explain the practical application of concepts learnt. Practice problems provided have been designed to enable the reader to apply his/her learning to a variety of situations and to urge the reader to think beyond the matter covered in the textbook. The lucid treatment in the book encourages self study and instills working knowledge of hydraulics in a student.

## FST TCS 2002: Foundations of Software Technology and Theoretical Computer Science

## Mathematics IIT JEE Main/Advanced - DPP

"Topology of Metric Spaces gives a very streamlined development of a course in metric space topology emphasizing only the most useful concepts, concrete spaces and geometric ideas to encourage geometric thinking, to treat this as a preparatory ground for a general topology course, to use this course as a surrogate for real analysis and to help the students gain some perspective of modern analysis." "Eminently suitable for self-study, this book may also be used as a supplementary text for courses in general (or point-set) topology so that students will acquire a lot of concrete examples of spaces and maps."--BOOK JACKET.

## Botany for Degree Students (For B.Sc. 1st Semester, As per CBCS)

Celebrated as an aquatic form of divinity for thousands of years, the Yamuna is one of India's most sacred rivers. A prominent feature of north Indian culture, the Yamuna is conceptualized as a goddess flowing with liquid love—yet today it is severely polluted, the victim of fast-paced industrial development. This fascinating and beautifully written book investigates the stories, theology, and religious practices connected with this river goddess collected from texts written over

several millennia, as well as from talks with pilgrims, priests, and worshippers who frequent the pilgrimage sites and temples located on her banks. David L. Haberman offers a detailed analysis of the environmental condition of the river and examines how religious practices are affected by its current pollution. He introduces Indian river environmentalism, a form of activism that is different in many ways from its western counterpart. River of Love in an Age of Pollution concludes with a consideration of the broader implications of the Yamuna's plight and its effect on worldwide efforts to preserve our environment.

## A Suitable Boy

The book is a rich source of information relevant to the field of assessment and learning. It describes various techniques and methods for evaluating the potential, ability, interest and attitude of learners for understanding the ways to further build up the pyramid of their learning. It covers exhaustive information inclusive of that required for the compulsory paper "Assessment for Learning" introduced in the curriculum of B.Ed. course of various Indian universities in accordance with the guidelines of National Council for Teacher Education (NCTE). It discusses Revised Bloom's Taxonomy of Instructional Objectives, the Construction and Standardisation of Achievement and Diagnostic Tests, Policy Perspective on Examination and Assessment, latest Assessment Tools and Devices such as Portfolio Assessment. Besides, it describes the development and use of Rubrics,

Emerging Trends and Assessment Practices such as Computer-based online examination, Examination on demand, Open-book examination, and Choice-based credit system, and Statistical means and ways of analysing and interpreting students' performances. KEY FEATURES • Full coverage of syllabi of all the Indian universities • Diligently arranged chapters for the sequential learning • Comprehensive explanation with illustrative examples • Explicit figures, tables and diagrams for easy interpretation • Chapter-end summary for quick recapitulation

## Plant Genome

"The text is suitable for a typical introductory algebra course, and was developed to be used flexibly. While the breadth of topics may go beyond what an instructor would cover, the modular approach and the richness of content ensures that the book meets the needs of a variety of programs."--Page 1.

## The Wonder that was India

This volume consists of the proceedings of the 22nd International Conference on the Foundations of Software Technology and Theoretical Computer Science (FSTTCS 2002), organized under the auspices of the Indian Association for Research in Computing Science (IARCS). The conference was held at the Indian

Institute of Technology, Kanpur during December 12–14, 2002. The conference attracted 108 submissions (of which two were withdrawn). Of these, a total of 26 papers were selected for presentation in the conference. As in the last year, the PC meeting was held electronically (stretching over nearly three weeks in August 2002) and was a great success. In addition to the contributed papers, we had ?ve invited speakers this year: Hendrik Lenstra, Jr., Harry Mairson, Dale Miller, Chih-Hao Luke Ong, and Margus Veanes. We thank them for accepting our invitation and for providing abstracts (or even full papers) for the proceedings. Two workshops were organized in conjunction with the conference – both in Kanpur. A workshop on Parameterized Complexity was held during December 10–11, organized by Mike Fellows and Venkatesh Raman. The second workshop actually consisted of three miniworkshops: on Coding Theory by Madhu Sudan; on Finite Field Algorithms by Hendrik Lenstra, Jr.; and on Sieve Theory by R. Balasubramanian. We wish to thank all the reviewers and PC members who contributed greatly to making the conference a success. We also wish to thank the team at Springer- Verlag for their help in preparing the proceedings.

## Linear Programming and Network Flows

This is a comprehensive exposition of survey sampling useful both to the students of statistics for the course on sample survey and to the survey statisticians and practitioners involved in consultancy services, marketing, opinion polls, and so on.

The text offers updated review of difficult classical techniques of survey sampling, besides covering prediction-theoretic approach of survey sampling and nonsampling errors. NEW TO THIS EDITION Two new chapters—Nonparametric Methods of Variance Estimation (Chapter 19) and Analysis of Complex Surveys (Chapter 20)—have been added. These would greatly benefit the readers. KEY FEATURES ⬜ Covers concepts of unequal probability sampling. ⬜ Provides problems of making inference from finite population using tools of classical inference. ⬜ Describes nonsampling errors including Randomised Response Techniques. ⬜ Gives over 70 worked-out examples and more than 120 problems and solutions. ⬜ Supplies live data from India and Sweden—in examples and exercises. What the Reviewer says: This is a very comprehensive modern text on survey sampling with a strong slant towards theoretical results. The book is an excellent reference book and would be a good graduate level sampling text for a course with an emphasis on sampling theory. — JESSE C. ARNOLD, Virginia Polytechnic Institute and State University

## Dynamic Models and Control of Biological Systems

Oehlert's text is suitable for either a service course for non-statistics graduate students or for statistics majors. Unlike most texts for the one-term grad/upper level course on experimental design, Oehlert's new book offers a superb balance of both analysis and design, presenting three practical themes to students: • when to

use various designs • how to analyze the results • how to recognize various design options Also, unlike other older texts, the book is fully oriented toward the use of statistical software in analyzing experiments.

## Basic and Applied Aspects of Biotechnology

With the proclamation of human rights and impact of the philosophy of humanism, there has been a worldwide call for providing humane treatment to the disabled and putting an end to their isolation. Written in the same context, the book developed as per the issued directives of NCTE equips its readers with the knowledge, understanding, skills, interests and attitude needed for working in the inclusive schools. It acquaints them with all the essentials related to the nature of the different types of disabilities or impairments, diversities and exceptionalities of the children belonging to an inclusive school, the need and means of introducing the required adaptations in the environmental conditions, curriculum, teaching-learning strategies, teaching-learning aids and equipment, methods of assessing the progress of the diverse children, and likewise so many other things and requirements for fulfilling their responsibilities towards the diverse children in the inclusive set-up of the school. It is primarily designed for the students of secondary and elementary teacher education (B.Ed., B.El. Ed., D.Ed.) of the teacher training institutes. KEY FEATURES • Full coverage of the current syllabi prescribed for B. Ed., B. El. Ed. and D. Ed. in a user-friendly language • Comprehensive description

of the various aspects of inclusive education and children with special needs (CWSN) such as historical perspectives to disability and inclusive education, needed pedagogical and assessment approaches for CWSN, educational provisions for the disabled at national and international levels, and so forth • Inclusion of recent topics such as learning styles in the context of different types of disabilities and CWSN, forms of exclusions on various grounds including disabilities in Indian education, approaches and models of inclusion, individual education programme, assistive and adaptive technologies, and so on • Comprises chapter-end summary for quick glance of the concepts TARGET AUDIENCE • B.Ed. • B. El. Ed. • D.Ed.

## Analysis I

The Mathematics IIT JEE Main/Advanced - DPP is specially prepared for the students who are preparing for engineering entrance exam like jee main/Advanced, BITSAT etc. These daily practice problems are designed by 10 year teaching experienced senior professor Mr. Ramesh Chandra B.Tech IIT Kanpur (Mechanical Engineering). The e-book contains the higher order thinking problems, covering each and every concepts of the entire topic from level zero to advanced. Having this book add value to the aspirants preparation.

## Flow Through Open Channels

A mathematics textbook providing an introduction to fundamental concepts from the theory of complex variables together with numerous worked examples and applications. The textbook contains both elementary and advanced material which is suitable for a one or two semester course in complex variable theory for beginning graduate students in mathematics, physics, engineering and the sciences. There is sufficient elementary material so that the textbook would be suitable for an upper level undergraduate course in complex variable theory. The textbook contains numerous worked examples and a large number of exercises at the end of each chapter. The appendix C contains hints and answers to over 85 percent of the exercise problems. Some of the more difficult problems are worked out in step-by-step detail. An examination of the table of contents and exercise problems at the end of each chapter will illustrate the variety of applications presented. In addition to fundamentals the reader is provided with an introduction to many specialized topics involving complex variables. The text material concludes with a chapter on the Fourier, Laplace and Z-transforms followed by a chapter on special functions. For additional information and sample pages go to the web site: http://www.math.odu.edu/~jhh/counter8.html.

## Introduction to Complex Variables

Table of contents

## Examinations in Higher Education

The objective of the wide-ranging, multi-disciplinary book "PLANT GENOME: Diversity, Conservation and Manipulation" is to provide in depth knowledge and an attempt to highlight the current manipulations taking place in plant genome research. The book incorporates topics on plant genome, its diversity, conservation and manipulation, distributed in fifteen original articles written by eminent scholars. The authors have tried to amalgamate up-to-date information, is pertinent for researchers and students alike. The chapter include Molecular mechanisms of DNA damage and repair, Comet assay to assess DNA damage and genotoxic stress in plants, Molecular evaluation of plant genomic biodiversity, Biotechnological exploitations of cyanobacteria, Metabolic engineering: a multifarious promising tool of post-genomic era, Molecular map based breeding and gene mapping for valuable pharmaceutical alkaloid yields, a prospect strategy to unfold molecular mechanism of retinoblastoma (RB) gene pathway in human, Amaranthus: genomic diversity, evolution and its importance, Ploidy: a prime facilitator of speciation and evolution in plants, Biodegradation of sodium dodecyl sulphate, Microcystins, a novel class of toxins from cyanobacteria, and Banana genomics. The original articles include Wide hybridization in crop plants, Altered adaptive response of wheat (Triticum aestivum L.) and Production of wheat haploids by chromosome elimination technique.

## Algebra and Trigonometry

Here is a comprehensive introductory discussion of Earth, energy, and the environment in an integrated manner that will lead to an appreciation of our complex planet. The book looks at Earth from the perspective of a livable planet and elaborates on the surface and subsurface processes and the various energy cycles where energy is transformed and stored in the planet's various spheres. The chapters discuss the interactions between the different parts of Earth—how energy is exchanged between the atmosphere, hydrosphere, biosphere, and geosphere, and how they impact the environment in which we live.

## Sustainable Energy and Environment

This is part one of a two-volume book on real analysis and is intended for senior undergraduate students of mathematics who have already been exposed to calculus. The emphasis is on rigour and foundations of analysis. Beginning with the construction of the number systems and set theory, the book discusses the basics of analysis (limits, series, continuity, differentiation, Riemann integration), through to power series, several variable calculus and Fourier analysis, and then finally the Lebesgue integral. These are almost entirely set in the concrete setting of the real line and Euclidean spaces, although there is some material on abstract metric and

topological spaces. The book also has appendices on mathematical logic and the decimal system. The entire text (omitting some less central topics) can be taught in two quarters of 25–30 lectures each. The course material is deeply intertwined with the exercises, as it is intended that the student actively learn the material (and practice thinking and writing rigorously) by proving several of the key results in the theory.

## Legal Aptitude and Legal Reasoning for the CLAT and LLB Examinations

Due to awareness of people and their choice to choose the treatment modules Unani system of medicine along with other alternative therapies regaining the popularity and emerging as the mainstream treatment choice. According to the Unani system of medicine most of the diseases especially the chronic one are due to the imbalance in humors. So to treat these diseases we must know the Humoral pathology. By keeping all these in minds the authors try to explain the Humoral pathology in very simple way. Authors assume that thorough study of this book surely helps the readers to understand the Humors theory and humors pathology.Authors are very grateful and like to thanks all the contributors and those who helped us in various ways & in different aspect to complete this book.This book covers following topics:S.No Chapter and TopicI INTRODUCTION

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**Beautifully Ruined**

**A First Course in Design and Analysis of Experiments**

Manufacturing And Workshop Practices Have Become Important In The Industrial Environment To Produce Products For The Service Of Mankind. The Basic Need Is To Provide Theoretical And Practical Knowledge Of Manufacturing Processes And Workshop Technology To All The Engineering Students. This Book Covers Most Of The Syllabus Of Manufacturing Processes/Technology, Workshop Technology And Workshop Practices For Engineering (Diploma And Degree) Classes Prescribed By Different Universities And State Technical Boards.Some Comparisons Have Been Given In Tabular Form And The Stress Has Been Given On Figures For Better Understanding Of Tools, Equipments, Machines And Manufacturing Setups Used In Various Manufacturing Shops. At The End Of Each Chapter, A Number Of Questions Have Been Provided For Testing The Student S Understanding About The Concept Of The Subject. The Whole Text Has Been Organized In 26 Chapters.The First Chapter Presents The Brief Introduction Of The Subject With Modern Concepts Of Manufacturing Technology Needed For The Competitive Industrial Environment.

Chapter 2 Provides The Necessary Details Of Plant And Shop Layouts. General Industrial Safety Measures To Be Followed In Various Manufacturing Shops Are Described In Detail In Chapter 3. Chapters 4 8 Provide Necessary Details Regarding Fundamentals Of Ferrous Materials, Non-Ferrous Materials, Melting Furnaces, Properties And Testing Of Engineering Materials And Heat Treatment Of Metals And Alloys. Chapters 9 13 Describe Various Tools, Equipments And Processes Used In Various Shops Such As Carpentry, Pattern Making, Mold And Core Making, Foundry Shop. Special Casting Methods And Casting Defects Are Also Explained At Length.Chapters 14 16 Provide Basic Knowledge Of Mechanical Working Of Metals. Fundamental Concepts Related To Forging Work And Other Mechanical Working Processes (Hot And Cold Working) Have Been Discussed At Length With Neat Sketches. Chapter 17 Provides Necessary Details Of Various Welding And Allied Joining Processes Such As Gas Welding, Arc Welding, Resistance Welding, Solid-State Welding, Thermochemical Welding, Brazing And Soldering. Chapters 18 19 Describe Sheet Metal And Fitting Work In Detail. Various Kinds Of Hand Tools And Equipments Used In Sheet Metal And Fitting Shops Have Been Described Using Neat Sketches. Chapters 20 24 Provide Construction And Operational Details Of Various Machine Tools Namely Lathe, Drilling Machine, Shaper, Planer, Slotter, And Milling Machine With The Help Of Neat Diagrams. Chapter 25 Deals With Technique Of Manufacturing Of Products With Powder Metallurgy. The Last Chapter Of The Book Discusses The Basic Concepts Of Quality Control And Inspection Techniques Used In Manufacturing Industries.The Book Would Serve Only As A Text Book For

The Students Of Engineering Curriculum But Would Also Provide Reference Material To Engineers Working In Manufacturing Industries.

## Leading Science and Technology: India Next?

## Linear Models in Statistics

In a world buzzing with artificial intelligence, gene therapy, 3-D printing, and brain implants, where does India stand? India is not yet a front-runner in creating new knowledge and world-changing inventions. India does not even feature among the top 10 countries in scientific research. In this book, Varun argues that India would risk its economic progress, technology industry, and social development if it does not lead in research and innovation. He deliberates on how we can make India a leader in science and technology and uses a data-based approach to highlight the various limitations of India's research ecosystem. He demystifies how discoveries and inventions happen through stories and personal experiences. The book provides concrete, well-reasoned steps to build a "Scientific India." This is essential for India's success and for serving the cause of human progress.

## Introduction to Differential Equations

This book covers the complete syllabi prescribed for undergraduate courses in electrical, electronics, mechanical and instrumentation engineering offered by various Indian universities. The objective of this text is to provide thorough knowledge in the emerging field of special electrical machines. It discusses the stepper motor, switched reluctance motor, permanent magnet dc and ac motors, brushless dc motors, single phase special electric motors, servomotors, linear electric machines and permanent magnet axial flux machines. Key Features • Chapter on permanent magnet axial flux machines (not available in other Indian authors' books) • Numerous worked-out examples • Based on classroom tested materials • Simplified mathematical analysis Besides undergraduate students, the book will also be useful to the postgraduate students specialising in drives and control, power electronics, control systems and mechatronics.

# Research Methodology

# THEORY AND METHODS OF SURVEY SAMPLING

# River of Love in an Age of Pollution

It wasAlbert Einstein who, by combining the experimental results and physical arguments of others withhis own unique insights, first formulated the new principles in terms of which space, time, matterand energy were to be understood. These principles, and their consequences constitute the SpecialTheory of Relativity. Later, Einstein was able to further develop this theory, leading to what isknown as the General Theory of Relativity. Amongst other things, this latter theory is essentiallya theory of gravitation.

## Treatise on Thermodynamics

Autobiographical reminiscences and memoirs of and on Kailas Nath Katju, 1887-1968, Indian lawyer and nationalist.

## Mechanical Engineering News

Over the past few decades there has been a prolific increase in research and development in area of heat transfer, heat exchangers and their associated technologies. This book is a collection of current research in the above mentioned areas and discusses experimental, theoretical and calculation approaches and industrial utilizations with modern ideas and methods to study heat transfer for single and multiphase systems. The topics considered include various basic

concepts of heat transfer, the fundamental modes of heat transfer (namely conduction, convection and radiation), thermophysical properties, condensation, boiling, freezing, innovative experiments, measurement analysis, theoretical models and simulations, with many real-world problems and important modern applications. The book is divided in four sections : "Heat Transfer in Micro Systems", "Boiling, Freezing and Condensation Heat Transfer", "Heat Transfer and its Assessment", "Heat Transfer Calculations", and each section discusses a wide variety of techniques, methods and applications in accordance with the subjects. The combination of theoretical and experimental investigations with many important practical applications of current interest will make this book of interest to researchers, scientists, engineers and graduate students, who make use of experimental and theoretical investigations, assessment and enhancement techniques in this multidisciplinary field as well as to researchers in mathematical modelling, computer simulations and information sciences, who make use of experimental and theoretical investigations as a means of critical assessment of models and results derived from advanced numerical simulations and improvement of the developed models and numerical methods.

## An Introduction to Queueing Systems

This textbook has been designed to meet the needs of B.Sc. First Semester students of Botany as per the UGC Choice Based Credit System (CBCS). It

acquaints students with general characteristics, classification and economic importance of various divisions of biodiversity i.e., Microbes, Algae, Fungi and Archegoniate. While it provides strong conceptual understanding of the subject, it also helps in developing scientific outlook of the student.

# ASSESSMENT FOR LEARNING

I feel I'm losing it all, everything I've kept near and dear--I'm shoving it away because I don't know how to keep my life in order anymore. What was simply fine and okay is no longer either. My world is growing into one black hole, dragging me down. I've discovered my monsters, I've found my demons, and to make sure no one goes down with me, I've given them an out. I've given Zephyr the out he deserves. But was it worth it? Just when Joey's life seemed to be getting better, one night sends her memory into overdrive. Not able to cope, she pushes away the only friend she could count and tries to cut out all the rest. When a new student walks into her class and is assigned the seat next to hers, Joey's not sure whether punch him or kick him below the belt with how forward he is. All this while fighting the urge to go back and beg Zephyr to be hers again. When the unthinkable happens, she has a hard decision to make--the hardest she's ever had to make: to stay or go.

# CREATING AN INCLUSIVE SCHOOL

For B.Sc 2nd year students of all Indian Universities. The book has been prepared keeping view the syllabi prepared by different universities on the basis of Model UGC Curriculum. A large number of illustrations, pictures and interesting examples have been provided to make the reading interesting and understandable. The question that have been provided in the Exercise are in tune with the latest pattern of examination.

## Experiments in Advocacy

## Trends in Civil Engineering and Challenges for Sustainability

About the Book: This second edition has been thoroughly revised and updated and efforts have been made to enhance the usefulness of the book. In this edition a new chapter The Computer: Its Role in Research have been added keeping in view of the fact tha

## Fundamentals of Mathematical Statistics

# Introduction to Basic Manufacturing Process and Workshop Technology

Knowledge updating is a never-ending process and so should be the revision of an effective textbook. The book originally written fifty years ago has, during the intervening period, been revised and reprinted several times. The authors have, however, been thinking, for the last few years that the book needed not only a thorough revision but rather a substantial rewriting. They now take great pleasure in presenting to the readers the twelfth, thoroughly revised and enlarged, Golden Jubilee edition of the book. The subject-matter in the entire book has been re-written in the light of numerous criticisms and suggestions received from the users of the earlier editions in India and abroad. The basis of this revision has been the emergence of new literature on the subject, the constructive feedback from students and teaching fraternity, as well as those changes that have been made in the syllabi and/or the pattern of examination papers of numerous universities. Knowledge updating is a never-ending process and so should be the revision of an effective textbook. The book originally written fifty years ago has, during the intervening period, been revised and reprinted several times. The authors have, however, been thinking, for the last few years that the book needed not only a thorough revision but rather a substantial rewriting. They now take great pleasure in presenting to the readers the twelfth, thoroughly revised and enlarged, Golden

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# THE ART OF MAN MAKING PART I

Mathematical Biology has grown at an astonishing rate and has established itself as a distinct discipline. Mathematical modeling is now being applied in every major discipline in the biological sciences. Though the field has become increasingly large and specialized, this book remains important as a text that introduces some of the exciting problems which arise in the biological sciences and gives some indication of the wide spectrum of questions that modeling can address.

## Heat Transfer

Queueing is an aspect of modern life that we encounter at every step in our daily activities. Whether it happens at the checkout counter in the supermarket or in accessing the Internet, the basic phenomenon of queueing arises whenever a shared facility needs to be accessed for service by a ]arge number of jobs or customers. The study of queueing is important as it gravides both a theoretical background to the kind of service that we may expect from such a facility and the way in which the facility itself may be designed to provide some specified grade of service to its customers. Our study of queueing was basically motivated by its use in the study of communication systems and computer networks. The various computers, routers and switches in such a network may be modelled as individual

queues. The whole system may itself be modelled as a queueing network providing the required service to the messages, packets or cells that need to be carried. Application of queueing theory provides the theoretical framework for the design and study of such networks. The purpose of this book is to support a course on queueing systems at the senior undergraduate or graduate levels. Such a course would then provide the theoretical background on which a subsequent course on the performance modeHing and analysis of computer networks may be based.

## Topology of Metric Spaces

The essential introduction to the theory and application of linear models—now in a valuable new edition Since most advanced statistical tools are generalizations of the linear model, it is neces-sary to first master the linear model in order to move forward to more advanced concepts. The linear model remains the main tool of the applied statistician and is central to the training of any statistician regardless of whether the focus is applied or theoretical. This completely revised and updated new edition successfully develops the basic theory of linear models for regression, analysis of variance, analysis of covariance, and linear mixed models. Recent advances in the methodology related to linear mixed models, generalized linear models, and the Bayesian linear model are also addressed. Linear Models in Statistics, Second Edition includes full coverage of advanced topics, such as mixed and generalized linear models, Bayesian linear models, two-way models with

empty cells, geometry of least squares, vector-matrix calculus, simultaneous inference, and logistic and nonlinear regression. Algebraic, geometrical, frequentist, and Bayesian approaches to both the inference of linear models and the analysis of variance are also illustrated. Through the expansion of relevant material and the inclusion of the latest technological developments in the field, this book provides readers with the theoretical foundation to correctly interpret computer software output as well as effectively use, customize, and understand linear models. This modern Second Edition features: New chapters on Bayesian linear models as well as random and mixed linear models Expanded discussion of two-way models with empty cells Additional sections on the geometry of least squares Updated coverage of simultaneous inference The book is complemented with easy-to-read proofs, real data sets, and an extensive bibliography. A thorough review of the requisite matrix algebra has been addedfor transitional purposes, and numerous theoretical and applied problems have been incorporated with selected answers provided at the end of the book. A related Web site includes additional data sets and SAS® code for all numerical examples. Linear Model in Statistics, Second Edition is a must-have book for courses in statistics, biostatistics, and mathematics at the upper-undergraduate and graduate levels. It is also an invaluable reference for researchers who need to gain a better understanding of regression and analysis of variance.

## Humoral Pathology

Pujya Gurudev Swami Chinmayananda made it a priority to revive the young generation of Indians, who were drifting through life without any clear goals, vision or direction. He believed that growth of the newly independent India could only be achieved by a motivated and clear-headed generation of youngsters. In order to inspire the youngsters of India and show them the possibilities of a nobler life, Gurudev delivered a series of fiery 10-minute talks on All India Radio, based on the Bhagavad-gita. He gave this ancient wisdom a contemporary context and presented in a form that was palatable and practical to the modern youngsters. Although delivered in the 1960s, these teachings are as relevant, fresh and inspiring today as they were 40 years ago. 114 SHORT TALKS ON THE BHAGAVAD-GITA

## Lecture Notes on Special Relativity

## B.SC.Chemistry - II (UGC)

This book explores the journey of biotechnology, searching for new avenues and noting the impressive accomplishments to date. It has harmonious blend of facts, applications and new ideas. Fast-paced biotechnologies are broadly applied and are being continuously explored in areas like the environmental, industrial,

agricultural and medical sciences. The sequencing of the human genome has opened new therapeutic opportunities and enriched the field of medical biotechnology while analysis of biomolecules using proteomics and microarray technologies along with the simultaneous discovery and development of new modes of detection are paving the way for ever-faster and more reliable diagnostic methods. Life-saving bio-pharmaceuticals are being churned out at an amazing rate, and the unraveling of biological processes has facilitated drug designing and discovery processes. Advances in regenerative medical technologies (stem cell therapy, tissue engineering, and gene therapy) look extremely promising, transcending the limitations of all existing fields and opening new dimensions for characterizing and combating diseases.

ROMANCE  ACTION & ADVENTURE  MYSTERY & THRILLER  BIOGRAPHIES & HISTORY  CHILDREN'S  YOUNG ADULT  FANTASY  HISTORICAL FICTION  HORROR  LITERARY FICTION  NON-FICTION  SCIENCE FICTION