

## Amie Section A Civil Engineering Syllabus

This text primarily analyses different methods of design of concrete structures as per IS 456: 2000 (Plain and Reinforced Concrete—Indian Standard Code of Practice, 4th revision, Bureau of Indian Standards). It gives greater emphasis on the limit state method so as to illustrate the acceptable limits for the safety and serviceability requirements of structures. Besides dealing with yield line analysis for slabs, the book explains the working stress method and its use for designing reinforced concrete tension members, theory of redistribution of moments, and earthquake resistant design of structures. This well-structured book develops an effective understanding of the theory through numerous solved problems, presenting step-by-step calculations. The use of SP-16 (Design Aids for Reinforced Concrete to IS: 456-1978) has also been explained in solving the problems. KEY FEATURES : Instructional objectives at the beginning of the chapter highlight important concepts. Summary at the end of the chapter to help student revise key points. Sixty-nine solved illustrative examples presenting step-by-step calculations. Chapter-end exercises to test student's understanding of the concepts. Forty Tests to enable students to gauge their preparedness for actual exams. This comprehensive text is suitable for undergraduate students of civil engineering and architecture. It can also be useful to professional engineers. [ABOUT THE BOOK: I feel proud in issuing the Seventh Edition of the book "Building Construction and Materials". The subject " Building Construction and Materials" is a very vastand tedious subject of Civil Engineering. Author has tried to explain all the aspects of this subject in a very simple and lucid language. The Book is entirely in SI Units. The book covers the syllabi prescribed by all the Indian universities, State Technical Boards and A.M.I.E. (India) examinations. The book is also very useful for Engineers involved in construction industry. All the relevant I.S.I. Recommendations and other useful data have been incorporated in the book. Author has tried to explain all the aspects with the help of lot of neat drawings. It is hoped that the book will satisfy all the needs of the students and practising engineers in regard to this subject. In order to increase the usefulness of the book basic engineering materials have been added in this revised 17th edition. Basic engineering material like stone, bricks, lime, cement, timber and iron has been added in this edition. [RECOMMENDATIONS: A textbook for all Engineering Branches, Competitive Examination, ICS, and AMIE Examinations In S.I Units For Degree, Diploma and A.I.M.E. (India) Students and Practicing Civil Engineers. [ABOUT THE AUTHOR: Dr. Gurcharan Singh Joint Director (Retd.) Directorate of Technical Education Rajasthan, Jodhpur [BOOK DETAILS: ISBN : 978-81-89401-21-4 Pages: 933 + 26 Edition: 17th,Year-2019 Size(cms): L-23.7, B-15.8, H-3.7 (For more Offers visit our Website: www.standardbookhouse.com

The book is based on a model syllabus approved by the MHRD and AICTE for a compulsory subject in AMIE examinations. This syllabus may be considered by other academic bodies for adoption. Contents: Group I. Society Sociology and its Scope: Introduction / Definitions of Sociology / Scope of Sociology / Specialised Fields of Sociology / Sociology and other Social Sciences / Role of a Sociologist / Sociology and the Engineer / Model Questions / Societal Structures: Introduction / Society and Sociological Concepts / Social Stratification / Caste / Class / Cultural Heritage / Occupation / Model Questions / Societal Dynamics: Mobility / Income Distribution / Social Tensions and their Causes / Societal Responsibilities / Social Institutions / Model Questions / Development Processes: Development of Traditional Society / The Process of Development / Parameters for Development / Interrelationship between Social, Economic and Scientific Factors / Role of Science and Technology in Development / Planning - its Objectives and Assessment / Model Questions / Technology Assessment: Historical Development of Science / Historical Development of Technology / Appropriate Technology and Criteria for its Assessment / Technology Adaptation / Model Questions / Group II. Environment - Environment: Introduction / The Biosphere / Man s Impact Upon the Environment / Environmental Pollution / Economic Development and Environment / Sustainable Development / The Environmental Ethic / The Role of Environmental Engineer / Model Questions / Ecosystems: Ecology and its Scope / Natural Ecosystems / Principles of Ecobalance / Biosphere Cycle / Man and Ecosystems / Causes for Eco-imbalance / Effects of Eco-imbalance / Remedies for Eco-imbalance / Model Questions / Environmental Degradation: Man and Environment / Causes for Environmental Degradation / Effects of Environmental Degradation / Control of Environmental Pollution / Model Questions / Waste Management: Solid Wastes / Management of Agricultural Wastes / Management of Urban Wastes / Management of Industrial Wastes / Model Questions / Sustainable Development: Dilemma of Development / Definition of Development / Definition and Concept of Sustainable Development / Science, Technology and Sustainable Development / Technology for Sustainable materials / Model Questions Analytical Methods in Structural Engineering Irrigation Engineering and Hydraulic Structures Surveying (Volume - I) FUNDAMENTALS OF INTERNAL COMBUSTION ENGINES Analysis Of Structures Vol.1: Analysis, Design And Details Of Structures A systematic approach towards integration of design and manufacturing is essential for optimizing all elements of the integrated manufacturing system. This book is an attempt towards this approach and is intended to provide an introduction to the design process, the manufacturing processes and the tools for integration to young engineering students. Fundamental information on materials, manufacturing processes and integrated manufacturing are provided which will help the designer in the selection of most appropriate materials, processes and methods to transform his ideas into a successful product. ★ABOUT THE BOOK: The basic aim of the seventeenth edition of Surveying, Volume-I, is the same as that of the earlier editions, namely, to present the fundamentals of the subject in a simplified manner and to illustrate the basic concepts in a simple and lucid language so that even a beginner can understand it. A large number of worked examples and figures have been given to illustrate the basic theories. The subject matter has been revised wherever necessary to make some of the basic concepts more clear and understandable. A few new problems and examples have been added. Some of the old figures have been replaced by new ones. Either colored plates of the surveying instruments have been added as an appendix. These plates and figures are useful for making the subject matter more illustrative. ★OUTSTANDING FEATURES:- :E.D.M., Total Station & G.P.S. are included separately -All the text has been explained in a simple, lucid language -SI Units used in the entire book -This book will be useful for Degree/Diploma/A.M.I.E. students and equally useful to the field engineers and surveyors -Number of problems have been solved in details -Subject matter is supported by very good diagrams -Either colored plates of the surveying instruments have been added as an appendix. ★RECOMMENDATIONS: A textbook for all Engineering Branches, Competitive Examination, ICS, and AMIE Examinations ★ABOUT THE AUTHOR: Dr. K.R. ARORA B.E. (Civil), M.E. (Hons), Ph.D (I.I.T. Delhi) Professor and former Head, Department of Civil Engineering, Engineering College, Kota (Rajasthan). ★BOOK DETAILS: ISBN : 978-81-89401-23-8 Pages: 690 + 16 Edition:17th, Year -2019 Size(cms): L-24.2 B-18.2 H-2.8 ★PUBLISHED BY: STANDARD BOOK HOUSE Since 1960 Unit of Rajsons Publications Pvt Ltd Regd Office: 4262/3A Ground Floor Ansari Road Daryaganj New Delhi-110002 +91 011 43551185/43551085/43751128/23250212 Retail Office : 1705-A Nai Sarak Delhi-110006 011 23265506 Website: www.standardbookhouse.com A venture of Rajsons Group of Companies Beginning with elementary surveying techniques Surveying and Levelling, covers the entire spectrum of the subject in a single volume. This student-friendly book incorporates a large number of exercise problems. A Text Book of Automobile Engineering Directory of Associate Members Civil Engineering For Civil Engineering Degree Students ; AMIE (section B) Exams - New Scheme ; GATE Exams ; U.P.S.C. and Other State Service Competitions ; and for Professional Field Engineers AMIE (section B) Exams : U.P.S.C. and Other State Service Competitions : and for Professionals]

The Book Provides A Lucid And Step-By-Step Treatment Of The Various Principles, Methods And Instruments Involved In Land Surveying. Modern Methods And Techniques Are Emphasised Throughout The Text.After Presenting The Basic Concepts And Definitions, The Book Explains Errors In Survey Measurement And Their Propagation. Survey Measurements Are Detailed Next. These Include Horizontal And Vertical Distances, Slope, Elevation, Angle And Direction. Measurement Using Stadia Tacheometry Is Then Highlighted, Followed By Contouring And Uses Of Contours In Civil Engineering Projects.Traversing Is Then Explained, Followed By A Detailed Discussion Of Plotting Of Maps By Plane Tabling. The Use Of Tangent Clinometer In Plane Tabling Has Been Suitably Highlighted.The Book Then Explains The Calculation Of Areas And Volumes From The Survey Measurements. The Last Chapter Features Various Types Of Curves And Includes A Variety Of Field Problems In Setting Out The Curves.Suitable Diagrams, Illustrative Examples And Practice Problems Are Included Throughout The Book.The Book Would Serve As An Excellent Text For Degree And Diploma Students Of Civil Engineering. Amie Candidates, And Practicing Engineers Would Also Find This Book Extremely Useful.

The book "Principles of Organic Farming: Textbook" has been designed to fulfill the requirement of undergraduate students of agriculture faculty considering the syllabus of 5th Dean's committee of ICAR. This book makes an attempt to present the available information on organic agriculture in a very simple and lucid language based on the experience of the author. The book contains chapters on an introduction to organic farming, promotion of organic agriculture in India, organic ecosystems and their concepts, organic nutrients resources and their management, insect pests and disease management in organic farming, weed management in organic farming, organic crop production, certification process and standards of organic farming in India, processing and labelling of organic produce, economic viability of organic farming, marketing and export potential of organic products.

This book provides a detailed study of geometrical drawing through simple and well-explained worked-out examples and exercises. This book is designed for students of first year Engineering Diploma course, irrespective of their branches of study. The book is divided into seven modules. Module A covers the fundamentals of manual drafting, lettering, freehand sketching and dimensioning of views. Module B describes two-dimensional drawings like geometrical constructions, conics, miscellaneous curves and scales. Three-dimensional drawings, such as projections of points, lines, plane lamina, geometrical solids and their different sections are well-explained in Module C. Module D deals with intersection of surfaces and their developments. Drawing of pictorial views is illustrated in Module E, which includes isometric projection, oblique projection and perspective projections. The fundamentals of machine drawing are covered in Module F. Finally, in Module G, the book introduces computer-aided drafting (CAD) to make the readers familiar with the state-of-the-art techniques of drafting. KEY FEATURES : Follows the International Standard Organization (ISO) code of practice for drawing. Includes a large number of dimensioned illustrations, worked-out examples, and Polytechnic questions and answers to explain the geometrical drawing process. Contains chapter-end exercises to help students develop their drawing skills.

Building Construction and Materials Instant Horticulture Higher Surveying Irrigation Engineering and Hydraulic Structures for [Civil Engineering Degree Students Construction Materials for Civil Engineering ?ABOUT THE BOOK: The present edition of the boos is mostly overhauled and revised. One chapter on Temporary Structures is added in the portion of Building Construction. Now the book is quite up-to-date. This edition of the book is entirely new and different from its previous editions. We hope, the book will prove more useful and will serve its purpose better. ?RECOMMENDATIONS: A textbook for all Engineering Branches, Competitive Examination, ICS, and AMIE Examinations In S.I Units For Degree, Diploma and A.I.M.E. (India) Students and Practicing Civil Engineers ?ABOUT THE AUTHOR: T.D. Ahuja Formerly Head of Civil Engineering Deptt. Allahabad Polytechnic, Allahabad and G.S. Biridi Formerly Head of Structural Engng. Deptt. Allahabad Polytechnic, Allahabad ?BOOK DETAILS: ISBN: 978-81-89401-47-4 Pages: 331 + 20 Paperback Edition: 9th,Year-2016 Size(cms): L-23.9 B-15.8 H-1.3 ?For more Offers visit our Website: www.standardbookhouse.com This publication establishes a basic understanding of materials used in civil engineering construction as taught in tertiary institutions across South Africa. It uses the objectives of the NOF in promoting independent learning and is the only book pertaining to Civil Engineering that covers all the necessary topics under one roof.

This is primarily intended to satisfy the needs of a text the students studying in Diploma, Degree and AMIE. An attempt has been made to present the matter of the text in a very simple language. Procedures to be followed for the design of various fundamental structures in steel have been explained step by step incorporating all the specifications of the revised code of practice from Bureau of Indian Standards (BIS). A large number of numerical examples illustrated with self explanatory sketches specially drawn for the purpose has been given to make the design procedures of different structures easily understandable. Each Chapter is Supplemented with objective type questions. Principles of Organic Farming: Textbook Building Construction Surveying and Levelling Instrumentation Systems Irrigation Engineering Contributed chapters. I feel elevated in presenting the New edition of this standard treatise.The favourable reception,which the previous edition and reprints of this book have enjoyed,is a matter of great satisfaction for me.I wish to express my sincere thanks to numerous professors and students for their valuable suggestions and recommending the patronise this standard treatise in the future also.

Irrigation Engineering and Hydraulic StructuresSoil Mechanics and Foundation EngineeringFor Civil Engineering Degree Students ; AMIE (section B) Exams - New Scheme ; GATE Exams ; U.P.S.C. and Other State Service Competitions ; and for Professional Field EngineersAnalysis & Design Of StructuresIrrigation Engineering and Hydraulic Structures for [Civil Engineering Degree StudentsAMIE (section B) Exams : U.P.S.C. and Other State Service Competitions : and for Professionals]Civil Engineering Materials & Construction PracticesAdvanced Structural AnalysisAlpha Science International Limited ENGINEERING GRAPHICS Basic Civil Engineering Fundamentals and Applications Theory of Structures Irrigation Agronomy

Providing a comprehensive introduction to the basics of Internal Combustion Engines, this book is suitable for: Undergraduate-level courses in mechanical engineering, aeronautical engineering, and automobile engineering. Postgraduate-level courses (Thermal Engineering) in mechanical engineering. A.M.I.E. (Section B) courses in mechanical engineering. Competitive examinations, such as Civil Services, Engineering Services, GATE, etc. In addition, the book can be used for refresher courses for professionals in auto-mobile industries. Coverage includes Analysis of processes (thermodynamic, combustion, fluid flow, heat transfer, friction and lubrication) relevant to design, performance, efficiency, fuel and emission requirements of internal combustion engines. Special topics such as reactive systems, unburned and burned mixture charts, fuel-line hydraulics, side thrust on the cylinder walls, etc. Modern developments such as electronic fuel injection systems, electronic ignition systems, electronic indicators, exhaust emission requirements, etc. The Second Edition includes new sections on geometry of reciprocating engine, engine performance parameters, alternative fuels for IC engines, Camot cycle, Stirling cycle, Ericsson cycle, Lenoir cycle, crankcase ventilation, supercharger controls and homogeneous charge compression ignition engines. Besides, air-standard cycles, latest advances in fuel-injection system in SI engine and gasoline direct injection are discussed in detail. New problems and examples have been added to several chapters. Key Features Explains basic principles and applications in a clear, concise, and easy-to-read manner Richly illustrated to promote a fuller understanding of the subject SI units are used throughout Example problems illustrate applications of theory End-of-chapter review questions and problems help students reinforce and apply key concepts Provides answers to all numerical problems Instrumentation technology is vitally important today since it supports the automation of a wide range of manufacturing factories, the chemical industryand electrical power generation facilities. Engineers who are active in these and other fields need the technical information and support provided by this comprehensive text. Modern instrumentation technology is a constantly-changing kaleidocope of technological progress that is keeping pace with the entire field of micro-electronics. This is necessary to keep up with the progress evident in the industries that it supports. As a result, the traditional technology of industrial instruments has evolved into one of comprehensive instrumentation systems for an entire factory or plant. This state-of-the-art book is a handy, single-source reference for information required by engineers in the instrumentation business.

The main objective kept in mind in writing this book is to familiarize the readers with various types of construction materials their manufacture or production, classification, important physical and chemical properties, their uses advantages, disadvantages, testing etc. The book has been written in a very simple and lucid language, illustrated with neatly drawn diagrams and problems The book is designed keeping in mind syllabus of various universities, AIME. The book will prove equally useful to the practicing engineers. Air Pollution and Control Analysis & Design Of Structures Society and Environment Plane Surveying

**This Book Presents A Thorough Exposition Of The Basic Concepts And Methods Involved In Structural Engineering. Starting With A Lucid Account Of Consistent Deformation, The Book Explains The Slope Deflection And Moment Distribution Methods.Equations Of Kanis Methods Are Explained Next, Followed By A Detailed Account Of Distribution Of Deformation And Column Analogy Method. The Book Concludes With A Thorough Description Of Indeterminate Structures.The Various Principles And Techniques Are Illustrated With Suitable Solved Examples Throughout The Book. Numerous Practice Problems Have Also Been Included.With Its Simple And Systematic Approach, The Book Would Serve As An Ideal Text For Both Degree And Diploma Students Of Civil Engineering. Amie Candidates And Practising Engineers Would Also Find It Extremely Useful.**  
**This Book Presents A Systematic And Contemporary Treatment Of The Theory And Applications Involved In Higher Surveying. It Also Highlights Some Of The Modern Developments In Geomatics.After Explaining The Basic Survey Operations, Triangulation And Trilateration, The Book Describes The Various Adjustment Methods Applied To Survey Measurement In Detail, Which Is Followed By Topographic, Hydrographic, Construction, And Route Surveying. As Engineers And Surveyors Need Knowledge Of Determining Absolute Coordinates Of Points And Directions Of Lines On The Earth'S Surface, A Detailed Discussion On Field Astronomy Is Presented In This Book. A Chapter On Map Projection Is Also Included In The Book.Recent Advances In Land Surveying Are Then Highlighted Including Photogrammetry And Photographic Interpretation. Remote-Sensing Technique Utilizing Data Acquired Through Satellites Is Also Explained.Recent Instrumentation Techniques And Methodologies Being Used In Geomatics Are Emphasized. These Cover A Range Of Modern Instruments Including Edm, Total Station, Laser-Based Instruments, Electronic Field Book, Gps, Automated Photogrammetric Systems, And Geographic Information System.A Large Number Of Worked-Out Examples, Illustrations, And Photographs Are Included For An Easy Grasp Of The Concepts. The Book Would Serve As An Excellent Text For Civil Engineering Students. Amie Candidates, And Surveyors. Practicing Engineers Would Also Find It Extremely Useful In Their Profession.**  
**Instrumentation technology is vitally important today since it supports the automation of a wide range of manufacturing factories, the chemical industry and electrical power generation facilities. Engineers who are active in these and other fields need the technical information and support provided by this comprehensive text. Modern instrumentation technology is a constantly-changing kaleidocope of technological progress that is keeping pace with the entire field of micro-electronics. This is necessary to keep up with the progress evident in the industries that it supports. As a result, the traditional technology of industrial instruments has evolved into one of comprehensive instrumentation systems for an entire factory or plant. This state-of-the-art book is a handy, single-source reference for information required by engineers in the instrumentation business.**

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**This Book Presents A Systematic And Contemporary Treatment Of The Theory And Applications Involved In Higher Surveying. It Also Highlights Some Of The Modern Developments In Geomatics.After Explaining The Basic Survey Operations, Triangulation And Trilateration, The Book Describes The Various Adjustment Methods Applied To Survey Measurement In Detail, Which Is Followed By Topographic, Hydrographic, Construction, And Route Surveying. As Engineers And Surveyors Need Knowledge Of Determining Absolute Coordinates Of Points And Directions Of Lines On The Earth'S Surface, A Detailed Discussion On Field Astronomy Is Presented In This Book. A Chapter On Map Projection Is Also Included In The Book.Recent Advances In Land Surveying Are Then Highlighted Including Photogrammetry And Photographic Interpretation. Remote-Sensing Technique Utilizing Data Acquired Through Satellites Is Also Explained.Recent Instrumentation Techniques And Methodologies Being Used In Geomatics Are Emphasized. These Cover A Range Of Modern Instruments Including Edm, Total Station, Laser-Based Instruments, Electronic Field Book, Gps, Automated Photogrammetric Systems, And Geographic Information System.A Large Number Of Worked-Out Examples, Illustrations, And Photographs Are Included For An Easy Grasp Of The Concepts. The Book Would Serve As An Excellent Text For Civil Engineering Students. Amie Candidates, And Surveyors. Practicing Engineers Would Also Find It Extremely Useful In Their Profession.**  
**Instrumentation technology is vitally important today since it supports the automation of a wide range of manufacturing factories, the chemical industry and electrical power generation facilities. Engineers who are active in these and other fields need the technical information and support provided by this comprehensive text. Modern instrumentation technology is a constantly-changing kaleidocope of technological progress that is keeping pace with the entire field of micro-electronics. This is necessary to keep up with the progress evident in the industries that it supports. As a result, the traditional technology of industrial instruments has evolved into one of comprehensive instrumentation systems for an entire factory or plant. This state-of-the-art book is a handy, single-source reference for information required by engineers in the instrumentation business.**

Basic Electrical and Electronics Engineering provides an overview of the basics of electrical and electronic engineering that are required at the undergraduate level. The book allows students outside electrical and electronics engineering to easily Principles Of Geoinformatics Geotechnical and Foundation Engineering Design of Steel Structures Soil Mechanics and Foundation Engineering DESIGN OF CONCRETE STRUCTURES **The book is primarily intended for Engineering graduate courses of The Institution of Engineers(India), AMIE Section B and other professional examinations. This book has been designed to meet the needs of civil Engineering curricula for the courses in Geotechnical and Foundation Engineering. Subject of Geotechnical Engg. covers all the properties of soil, their behaviour and their Engineering applications in order to build large structures like dam, multistorey buildings etc. The book covers the syllabus in soil mechanics and foundation Engineering for the degreee and diploma students in Civil Engineering and is designed to be useful to practising Engineers as well. The number of illustrative problems as well as a number of practice problems is made as large as possible so as to cover the various types of problems. Summary of main points has been given at the end of each chapter. Basic Civil Engineering is designed to enrich the preliminary conceptual knowledge about civil engineering to the students of non-civil branches of engineering. The coverage includes materials for construction, building construction, basic surveying and other major topics like environmental engineering, geo-technical engineering, transport traffic and urban engineering, irrigation & water supply engineering and CAD. The subject "Irrigation Engineering" has assumed importance since last 30 to 40 years. Continued increase in population, particular in developing countries, at a very fast rate has caused scarcity of food. The real answer to food problem, is increased production of food articles; which is possible only by artificial irrigation of fields. India has a very large potential for irrigation, because area and water resources both are abundantly available. Abundance of area for irrigation and availability of lot of water resources are probably the reasons that most of the early irrigation practices and theories were developed in India. There is lot of variations in rainfall in different regions of India. Some of the areas have very little rainfall insufficient to grow any crop. Other areas have sufficient rainfall but its distribution is not as required by the crops. Scanty rainfall and erratic distribution both necessitate artificial irrigation. The purpose of this book is to present the subject in most concise form. Simplicity of language is the main feature of the book. The book is completely in MKS units and covers the syllabus of all the Indian Universities, State Technical Boards, and A.M.I.E. (India) examinations. The book should be equally useful to practicing Engineers as reference book. Examples of almost all the important irrigation works have been solved and then illustrated in neat drawing charts. Khosla's Charts, Lacey's and Garret diagrams all are in MKS units. Rajsons Publications Pvt. Ltd. Every effort was made to eliminate printing errors. I would appreciate if printing errors are brought to my notice and Suggestions to bring about improvements in the book are most welcome. I am thankful to all my friends who have rendered great help by their valuable suggestions. In last I am thankful to Shri R.K. Jain, Prop. Standard Book House, without whose efforts this venture would not have reached the readers. Basic Electrical and Electronics Engineering: Economics Of Farm Production And Management Vegetable Crops-Breeding And Seed Production Civil Engineering Construction Materials FOR DIPLOMA**