

## Ece Multiple Choice Questions With Answers Viraj

Electronic Circuit Analysis is designed to serve students of a two semester undergraduate course on electronic circuit analysis. It builds on the subject from its basic principles over fifteen chapters, providing detailed coverage on the design and analysis of electronic circuits.

This book deals with the fundamentals of electrical engineering concepts like design & application of circuitry, equipment for power generation & distribution and machine control. Features Transformers discussed in detail. Thoroughly revised chapters on Single and Three-Phases Induction Motors. New chapter on: 1. Three-Phase Alternator 2. Electromechanical Energy Conversion 3. Testing of DC Machines

The second edition of this well received text continues to provide coherent and comprehensive coverage of digital signal processing. It is designed for undergraduate students of Electronics and Communication engineering, Telecommunication engineering, Electronics and Instrumentation engineering, Electrical and Electronics engineering, Electronics and Computers engineering, Biomedical engineering and Medical Electronics engineering. This book will also be useful to AMIE and IETE students. Written with student-centred, pedagogically-driven approach, the text provides a self-contained introduction to the theory of digital signal processing. It covers topics ranging from basic discrete-time signals and systems, discrete convolution and correlation, Z-transform and its applications, realization of discrete-time systems, discrete-time Fourier transform, discrete Fourier series, discrete Fourier transform to fast Fourier transform. In addition to this, various design techniques for design of IIR and FIR filters are discussed. Multi-rate digital signal processing and introduction to digital signal processors and finite word length effects on digital filters are also covered. All the solved and unsolved problems in this book are designed to illustrate the topics in a clear way. MATLAB programs and the results for typical examples are also included at the end of chapters for the benefit of the students. New to This Edition A chapter on Finite Word Length Effects in Digital Filters Key Features • Numerous worked-out examples in each chapter • Short questions with answers help students to prepare for examinations and interviews • Fill in the blanks, review questions, objective type questions and unsolved problems at the end of each chapter to test the level of understanding of the subject

The book 'Basic Environmental Engineering and Elementary Biology' has been written for the engineering students. It starts with basic concepts of ecology and concerns on environment. It then discusses how the spiraling rate of population growth and the requirements of human beings have led to large-scale deforestation, depletion of the ozone layer, creation of greenhouse effect, acid rain, smog and environmental pollution. The book equips students to manage environment-related issues by showing how technology can be used to control these problems. This well thought-out book on one of the most talked about issues today, can serve as a ground for future environmentalists. It can also be a highly useful reference work for those interested in working towards a better and cleaner environment. Fundamental aspects of environment principles have been explained in great detail, which can be used to manage environment and restore nature's balance.

"This research publication accommodates in-depth studies that elucidate both the

prospects and problems of learning assessment in higher education"--Provided by publisher.

New edition of a text intended primarily for the undergraduate courses on the subject which are frequently found in electrical engineering curricula--but the concepts and techniques it covers are also of fundamental importance in other engineering disciplines. The book is structured to develop in parallel the methods of analysis for continuous-time and discrete-time signals and systems, thus allowing exploration of their similarities and differences. Discussion of applications is emphasized, and numerous worked examples are included. Annotation copyrighted by Book News, Inc., Portland, OR

Providing a selection of papers presented at ICECE 2018, a biennial conference organised by the Early Childhood Education Program, Universitas Pendidikan Indonesia. The conference's general theme was "Finding Alternative Approaches, Theories, Frameworks, and Practices of Early Childhood Education in the 21st Century." Distinct from other periods of time, the 21st century is characterised by so much knowledge -easy to access but hard to grasp, borderless and hyper-connected society mediated by the internet, high competitiveness -not only within a country but across countries, high mobility, and widening economic discrepancy as neoliberalism has strengthened its influence on every sector of human life. The children of today will face many things that have not yet been invented or discovered, sometimes beyond expectations. Scholars and teachers of early childhood education need to be aware of these astonishing changes. The way children and childhood are seen cannot stay the same, and so does the way children of this century are educated. The conference opened a discussion about finding alternative approaches, theories, and best practices of early childhood education for a rapidly changing and globalised society.

You can save time and money on your college education. And you can have an unforgettable adventure along the way. Step-by-step, *College, Quicker* shows you how! On her first day of college, Kate Stephens had no government aid, no private scholarships, no significant savings—and no idea how she was going to pay for her education. But she graduated with zero debt in just two years. Her secret? Finding faster, less expensive ways to earn credits toward her degree. In *College, Quicker*, Stephens guides you to an affordable education, sharing practical tips on how to:

- Design your graduation plan. Are you still in high school? Already in college? Get the lowdown on how colleges' transfer credit policies work and sample schedules to organize your plan.
- Choose the credit-earning options that work best for you. Are you a good test taker? Do you feel cooped up in classrooms? Basics, benefits, and bottom-line financial savings help you weigh the pros and cons of each option.
- Get started now! Hit the ground running with step-by-step instructions plus insider tips, common mistakes to avoid, and bonus opportunities.

24 Money-Saving Options for ANY Kind of Student:

- AP and IB exams
- Dual enrollment
- CLEP, DSST, TECEP
- Internships
- Military transcripts
- Prior learning portfolios
- Alternative spring breaks
- And more!

"This handout is designed for students primarily eager in placement preparation. It follows an easy-to-learn approach with practice series. Students of B.tech CSE/IT/ECE/EN/ME/BCA and MCA will find it very helpful in placement preparation. Students will find frequently asked questions picked from different universities and interview questions. The answers to all multiple choice questions can be found at the end of each

chapter. Features: Profound number of solved problems with solutions. Substantial coverage in the context of the latest technologies. Rich Pedagogy Approximately 360 multiple choice questions More than 150 concept based questions Approximately 30 programming question asked in company test"

Electrical Circuit Analysis Multiple Choice Questions and Answers (MCQs): Quizzes & Practice Tests with Answer Key PDF, Electrical Circuit Analysis Worksheets & Quick Study Guide covers exam review worksheets for problem solving with 800 solved MCQs. Electrical Circuit Analysis MCQ with answers PDF covers basic concepts, theory and analytical assessment tests. Electrical Circuit Analysis quiz PDF book helps to practice test questions from exam prep notes. Electronics quick study guide provides 800 verbal, quantitative, and analytical reasoning solved past question papers MCQs. Electrical Circuit Analysis multiple choice questions and answers PDF download, a book covers solved quiz questions and answers on chapters: Applications of Laplace transform, ac power, ac power analysis, amplifier and operational amplifier circuits, analysis method, applications of Laplace transform, basic concepts, basic laws, capacitors and inductors, circuit concepts, circuit laws, circuit theorems, filters and resonance, first order circuits, Fourier series, Fourier transform, frequency response, higher order circuits and complex frequency, introduction to electric circuits, introduction to Laplace transform, magnetically coupled circuits, methods of analysis, mutual inductance and transformers, operational amplifiers, polyphase circuits, second order circuits, sinusoidal steady state analysis, sinusoids and phasors, three phase circuits, two port networks, waveform and signals worksheets for college and university revision guide. Electrical Circuit Analysis quiz questions and answers PDF download with free sample test covers beginner's questions and mock tests with exam workbook answer key. Electrical circuit analysis MCQs book, a quick study guide from textbooks and lecture notes provides exam practice tests. Electrical Circuit Analysis worksheets with answers PDF book covers problem solving in self-assessment workbook from electronics engineering textbooks with past papers worksheets as: Chapter 1 MCQ: AC Power Worksheet Chapter 2 MCQ: AC Power Analysis Worksheet Chapter 3 MCQ: Amplifier and Operational Amplifier Circuits Worksheet Chapter 4 MCQ: Analysis Method Worksheet Chapter 5 MCQ: Applications of Laplace Transform Worksheet Chapter 6 MCQ: Basic Concepts Worksheet Chapter 7 MCQ: Basic laws Worksheet Chapter 8 MCQ: Capacitors and Inductors Worksheet Chapter 9 MCQ: Circuit Concepts Worksheet Chapter 10 MCQ: Circuit Laws Worksheet Chapter 11 MCQ: Circuit Theorems Worksheet Chapter 12 MCQ: Filters and Resonance Worksheet Chapter 13 MCQ: First Order Circuits Worksheet Chapter 14 MCQ: Fourier Series Worksheet Chapter 15 MCQ: Fourier Transform Worksheet Chapter 16 MCQ: Frequency Response Worksheet Chapter 17 MCQ: Higher Order Circuits and Complex Frequency Worksheet Chapter 18 MCQ: Introduction to Electric Circuits Worksheet Chapter 19 MCQ: Introduction to Laplace Transform Worksheet Chapter 20 MCQ: Magnetically Coupled Circuits Worksheet Chapter 21 MCQ: Methods of Analysis Worksheet Chapter 22 MCQ: Mutual Inductance and Transformers Worksheet Chapter 23 MCQ: Operational Amplifiers Worksheet Chapter 24 MCQ: Polyphase Circuits Worksheet Chapter 25 MCQ: Second Order Circuits Worksheet Chapter 26 MCQ: Sinusoidal Steady State Analysis Worksheet Chapter 27 MCQ: Sinusoids and Phasors Worksheet Chapter 28 MCQ: Three Phase circuits Worksheet Chapter 29 MCQ: Two

Port Networks Worksheet Chapter 30 MCQ: Waveform and Signals Worksheet Solve Applications of Laplace Transform MCQ with answers PDF to practice test, MCQ questions: Circuit analysis. Solve AC Power MCQ with answers PDF to practice test, MCQ questions: Apparent power and power factor, applications, average or real power, complex power, complex power, apparent power and power triangle, effective or RMS value, exchange of energy between inductor and capacitor, instantaneous and average power, maximum power transfer, power factor correction, power factor improvement, power in sinusoidal steady state, power in time domain, and reactive power. Solve AC Power Analysis MCQ with answers PDF to practice test, MCQ questions: Apparent power and power factor, applications, complex power, effective or RMS value, instantaneous and average power, and power factor correction. Solve Amplifier and Operational Amplifier Circuits MCQ with answers PDF to practice test, MCQ questions: Amplifiers introduction, analog computers, comparators, differential and difference amplifier, integrator and differentiator circuits, inverting circuits, low pass filters, non-inverting circuits, operational amplifiers, summing circuits, and voltage follower. Solve Analysis Method MCQ with answers PDF to practice test, MCQ questions: Branch current method, maximum power transfer theorem, mesh current method, Millman's theorem, node voltage method, Norton's theorem, superposition theorem, and Thevenin's theorem. Solve Applications of Laplace Transform MCQ with answers PDF to practice test, MCQ questions: Circuit analysis, introduction, network stability, network synthesis, and state variables. Solve Basic Concepts MCQ with answers PDF to practice test, MCQ questions: Applications, charge and current, circuit elements, power and energy, system of units, and voltage. Solve Basic Laws MCQ with answers PDF to practice test, MCQ questions: Applications, Kirchhoff's laws, nodes, branches and loops, Ohm's law, series resistors, and voltage division. Solve Capacitors and Inductors MCQ with answers PDF to practice test, MCQ questions: capacitors, differentiator, inductors, integrator, and resistivity. Solve Circuit Concepts MCQ with answers PDF to practice test, MCQ questions: Capacitance, inductance, non-linear resistors, passive and active elements, resistance, sign conventions, and voltage current relations. Solve Circuit Laws MCQ with answers PDF to practice test, MCQ questions: Introduction to circuit laws, Kirchhoff's current law, and Kirchhoff's voltage law. Solve Circuit Theorems MCQ with answers PDF to practice test, MCQ questions: Kirchhoff's law, linearity property, maximum power transfer, Norton's theorem, resistance measurement, source transformation, superposition, and Thevenin's theorem. Solve Filters and Resonance MCQ with answers PDF to practice test, MCQ questions: Band pass filter and resonance, frequency response, half power frequencies, high pass and low pass networks, ideal and practical filters, natural frequency and damping ratio, passive, and active filters. Solve First Order Circuits MCQ with answers PDF to practice test, MCQ questions: Applications, capacitor discharge in a resistor, establishing a DC voltage across a capacitor, introduction, singularity functions, source free RL circuit, source-free RC circuit, source-free RL circuit, step and impulse responses in RC circuits, step response of an RC circuit, step response of an RL circuit, transient analysis with PSPICE, and transitions at switching time. Solve Fourier Series MCQ with answers PDF to practice test, MCQ questions: Applications, average power and RMS values, symmetry considerations, and trigonometric Fourier series. Solve Fourier transform MCQ with answers PDF to practice test, MCQ questions: applications. Solve Frequency

Response MCQ with answers PDF to practice test, MCQ questions: Active filters, applications, bode plots, decibel scale, introduction, passive filters, scaling, series resonance, and transfer function. Solve Higher Order Circuits and Complex Frequency MCQ with answers PDF to practice test, MCQ questions: Complex frequency, generalized impedance in s-domain, parallel RLC circuit, and series RLC circuit. Solve Introduction to Electric Circuits MCQ with answers PDF to practice test, MCQ questions: Constant and variable function, electric charge and current, electric potential, electric quantities and SI units, energy and electrical power, force, work, and power. Solve Introduction to Laplace Transform MCQ with answers PDF to practice test, MCQ questions: Convolution integral. Solve Magnetically Coupled Circuits MCQ with answers PDF to practice test, MCQ questions: Energy in coupled circuit, ideal autotransformers, ideal transformers, linear transformers, and mutual inductance. Solve Methods of Analysis MCQ with answers PDF to practice test, MCQ questions: Applications, circuit analysis with PSPICE, mesh analysis, mesh analysis with current sources, nodal analysis, nodal and mesh analysis by inception. Solve Mutual Inductance and Transformers MCQ with answers PDF to practice test, MCQ questions: Analysis of coupling coil, auto transformer, conductivity coupled equivalent circuits, coupling coefficient, dot rule, energy in a pair of coupled coils, ideal transformer, linear transformer, and mutual inductance. Solve Operational Amplifiers MCQ with answers PDF to practice test, MCQ questions: Cascaded op amp circuits, difference amplifier, ideal op amp, instrumentation amplifier, introduction, inverting amplifier, noninverting amplifier, operational amplifiers, and summing amplifier. Solve Polyphaser Circuits MCQ with answers PDF to practice test, MCQ questions: Balanced delta-connected load, balanced wye-connected load, equivalent  $y$  and  $\Delta$  connections, phasor voltages, the two wattmeter method, three phase power, three phase systems, two phase systems, unbalanced delta-connected load, unbalanced  $y$ -connected load, wye, and delta systems. Solve Second Order Circuits MCQ with answers PDF to practice test, MCQ questions: Second-order op amp circuits, applications, duality, introduction, and source-free series RLC circuit. Solve Sinusoidal Steady State Analysis MCQ with answers PDF to practice test, MCQ questions: Element responses, impedance and admittance, mesh analysis, nodal analysis, op amp ac circuits, oscillators, phasors, voltage and current division in frequency domain. Solve Sinusoids and Phasors MCQ with answers PDF to practice test, MCQ questions: Applications, impedance and admittance, impedance combinations, introduction, phasor relationships for circuit elements, phasors, and sinusoids. Solve Three Phase Circuits MCQ with answers PDF to practice test, MCQ questions: Applications, balanced delta-delta connection, balanced three-phase voltages, balanced wye-delta connection, balanced wye-wye connection, power in balanced system, and un-balanced three-phase system. Solve Two Port Networks MCQ with answers PDF to practice test, MCQ questions: Admittance parameters,  $g$ -parameters,  $h$ -parameters, hybrid parameters, impedance parameters, interconnection of networks, interconnection of two port networks, introduction,  $\pi$ -equivalent,  $t$ -parameters, terminals and ports, transmission parameters, two-port network,  $y$ -parameters, and  $z$ -parameters. Solve Waveform and Signals MCQ with answers PDF to practice test, MCQ questions: Average and effective RMS values, combination of periodic functions, exponential function, non-periodic functions, periodic functions, random signals, sinusoidal functions, time shift and phase shift, trigonometric

identities, unit impulse function, and unit step function.

The first edition of English Language Skills for Engineers by Aruna Koneru is designed to enhance the English communication skills of students pursuing engineering courses. It will enable them in acquiring proficiency in all the four language skills – listening, speaking, reading and writing (LSRW). The text also provides different methods to improve vocabulary so that learners get fully equipped to face challenges of communication at workplace. This book provides a fresh approach to meet professional requirements of the use of language in a comprehensive and effective way to suit the technological and informative age. Salient Features: Ø Well-crafted application modules to guide learners through “learning by applying” process. Ø Rich Pedagogy tools - Marginalia, Check-Point, Test Your Pronunciation, Communication Skill etc. Ø Adherence to the latest AICTE model syllabus.

This edited book is about the rationale, practice and classroom implementation of English-medium instruction courses in Chinese universities. It specifically focuses on classroom discourse analysis across different disciplines and settings. The main themes of this book are: describing the state educational policies toward English-medium instruction at the tertiary level; distinguishing English-medium instruction from mainstream foreign language learning; analyzing curricula and discourse at the classroom level and evaluating the learning effectiveness of these courses. This book covers the widespread implementation of English-medium courses in China across different disciplines, and it provides a window for researchers and practitioners from other parts of the world to see the curriculum design, lesson planning, discourse features and teacher-student interaction in English-medium classrooms in China. Contributors to this volume consists of a panel of highly respected researchers in the fields of bilingual education, English-medium instruction, classroom discourse analysis and language program evaluation. Chapters include, Balance of Content and Language in English-Medium Instruction Classrooms English-Medium Instruction in a Math Classroom: An Observation Study of Classroom Discourse Asking and answering questions in EMI classrooms: What is the Cognitive and Syntactic Complexity Level? This practical resource introduces electrical and electronic principles and technology covering theory through detailed examples, enabling students to develop a sound understanding of the knowledge required by technicians in fields such as electrical engineering, electronics and telecommunications. No previous background in engineering is assumed, making this an ideal text for vocational courses at Levels 2 and 3, foundation degrees and introductory courses for undergraduates.

The European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways (ADN) of 26 May 2000 has been in force since February 2008. This version has been prepared on the basis of amendments applicable as from 1 January 2019. The Regulations annexed to the ADN contain provisions concerning dangerous substances and articles, their carriage in packages and in bulk on board inland navigation vessels or tank vessels, as well as provisions concerning the construction and operation of such vessels. They also address requirements and procedures for inspections, the issue of certificates of approval, recognition of classification societies, monitoring, and

training and examination of experts. This is a two volume set.

A unique compendium of over 2000 multiple choice questions for students of electronics and electrical engineering. This book is designed for the following City and Guilds courses: 2010, 2240, 2320, 2360. It can also be used as a resource for practice questions for any vocational course.

"Engineering Physics Multiple Choice Questions and Answers (MCQs): Quizzes & Practice Tests with Answer Key" provides mock tests for competitive exams preparation. This book can help to learn and practice "Engineering Physics" quizzes as a quick study guide for placement test preparation. "Engineering Physics MCQs" helps with theoretical, conceptual, and analytical study for self-assessment, career tests. Engineering Physics Multiple Choice Questions and Answers pdf is a revision guide with a collection of trivia questions to fun quiz questions and answers pdf on topics: Alternating fields and currents, astronomical data, capacitors and capacitance, circuit theory, conservation of energy, coulomb's law, current produced magnetic field, electric potential energy, equilibrium, indeterminate structures, finding electric field, first law of thermodynamics, fluid statics and dynamics, friction, drag and centripetal force, fundamental constants of physics, geometric optics, inductance, kinetic energy, longitudinal waves, magnetic force, models of magnetism, newton's law of motion, Newtonian gravitation, ohm's law, optical diffraction, optical interference, physics and measurement, properties of common elements, rotational motion, second law of thermodynamics, simple harmonic motion, special relativity, straight line motion, transverse waves, two and three dimensional motion, vector quantities, work-kinetic energy theorem to enhance teaching and learning. Engineering Physics Quiz Questions and Answers pdf also covers the syllabus of many competitive papers for admission exams of different universities from physics textbooks on chapters: Alternating Fields and Currents Multiple Choice Questions: 27 MCQs. Astronomical Data Multiple Choice Questions: 150 MCQs. Capacitors and Capacitance Multiple Choice Questions: 17 MCQs. Circuit Theory Multiple Choice Questions: 14 MCQs. Conservation of Energy Multiple Choice Questions: 40 MCQs. Coulomb's Law Multiple Choice Questions: 13 MCQs. Current Produced Magnetic Field Multiple Choice Questions: 4 MCQs. Electric Potential Energy Multiple Choice Questions: 10 MCQs. Equilibrium, Indeterminate Structures Multiple Choice Questions: 51 MCQs. Finding Electric Field Multiple Choice Questions: 13 MCQs. First Law of Thermodynamics Multiple Choice Questions: 138 MCQs. Fluid Statics and Dynamics Multiple Choice Questions: 57 MCQs. Friction, Drag and Centripetal Force Multiple Choice Questions: 13 MCQs. Fundamental Constants of Physics Multiple Choice Questions: 45 MCQs. Geometric Optics Multiple Choice Questions: 19 MCQs. Inductance Multiple Choice Questions: 4 MCQs. Kinetic Energy Multiple Choice Questions: 41 MCQs. Longitudinal Waves Multiple Choice Questions: 21 MCQs. Magnetic Force Multiple Choice Questions: 26 MCQs. Models of Magnetism Multiple Choice Questions: 46 MCQs. Newton's Law of Motion Multiple Choice

Questions: 22 MCQs. Newtonian Gravitation Multiple Choice Questions: 92 MCQs. Ohm's Law Multiple Choice Questions: 36 MCQs. Optical Diffraction Multiple Choice Questions: 19 MCQs. Optical Interference Multiple Choice Questions: 9 MCQs. Physics and Measurement Multiple Choice Questions: 111 MCQs. Properties of Common Elements Multiple Choice Questions: 94 MCQs. Rotational Motion Multiple Choice Questions: 95 MCQs. Second Law of Thermodynamics Multiple Choice Questions: 10 MCQs. Simple Harmonic Motion Multiple Choice Questions: 35 MCQs. Special Relativity Multiple Choice Questions: 17 MCQs. Straight Line Motion Multiple Choice Questions: 14 MCQs. Transverse Waves Multiple Choice Questions: 47 MCQs. Two and Three Dimensional Motion Multiple Choice Questions: 12 MCQs. Vector Quantities Multiple Choice Questions: 21 MCQs. Work-Kinetic Energy Theorem Multiple Choice Questions: 17 MCQs

The chapter "Alternating Fields and Currents MCQs" covers topics of alternating current, damped oscillations in an RLS circuit, electrical-mechanical analog, forced and free oscillations, LC oscillations, phase relations for alternating currents and voltages, power in alternating current circuits, transformers. The chapter "Astronomical Data MCQs" covers topics of aphelion, distance from earth, eccentricity of orbit, equatorial diameter of planets, escape velocity of planets, gravitational acceleration of planets, inclination of orbit to earth's orbit, inclination of planet axis to orbit, mean distance from sun to planets, moons of planets, orbital speed of planets, perihelion, period of rotation of planets, planet densities, planets masses, sun, earth and moon. The chapter "Capacitors and Capacitance MCQs" covers topics of capacitor in parallel and in series, capacitor with dielectric, charging a capacitor, cylindrical capacitor, parallel plate capacitor. The chapter "Circuit Theory MCQs" covers topics of loop and junction rule, power, series and parallel resistances, single loop circuits, work, energy and EMF. The chapter "Conservation of Energy MCQs" covers topics of center of mass and momentum, collision and impulse, collisions in one dimension, conservation of linear momentum, conservation of mechanical energy, linear momentum and Newton's second law, momentum and kinetic energy in collisions, Newton's second law for a system of particles, path independence of conservative forces, work and potential energy. The chapter "Coulomb's Law MCQs" covers topics of charge is conserved, charge is quantized, conductors and insulators, and electric charge. The chapter "Current Produced Magnetic Field MCQs" covers topics of ampere's law, and law of Biot-Savart. The chapter "Electric Potential Energy MCQs" covers topics of introduction to electric potential energy, electric potential, and equipotential surfaces. The chapter "Equilibrium, Indeterminate Structures MCQs" covers topics of center of gravity, density of selected materials of engineering interest, elasticity, equilibrium, indeterminate structures, ultimate and yield strength of selected materials of engineering interest, and Young's modulus of selected materials of engineering interest. The chapter "Finding Electric Field MCQs" covers topics of electric field, electric field due to continuous charge distribution,

electric field lines, flux, and Gauss law. The chapter "First Law of Thermodynamics MCQs" covers topics of absorption of heat by solids and liquids, Celsius and Fahrenheit scales, coefficients of thermal expansion, first law of thermodynamics, heat of fusion of common substances, heat of transformation, heat of vaporization of common substances, introduction to thermodynamics, molar specific heat, substance specific heat in calories, temperature, temperature and heat, thermal conductivity, thermal expansion, and zeroth law of thermodynamics. The chapter "Fluid Statics and Dynamics MCQs" covers topics of Archimedes principle, Bernoulli's equation, density, density of air, density of water, equation of continuity, fluid, measuring pressure, pascal's principle, and pressure. The chapter "Friction, Drag and Centripetal Force MCQs" covers topics of drag force, friction, and terminal speed. The chapter "Fundamental Constants of Physics MCQs" covers topics of Bohr magneton, Boltzmann constant, elementary charge, gravitational constant, magnetic moment, molar volume of ideal gas, permittivity and permeability constant, Planck constant, speed of light, Stefan-Boltzmann constant, unified atomic mass unit, and universal gas constant. The chapter "Geometric Optics MCQs" covers topics of optical instruments, plane mirrors, spherical mirror, and types of images. The chapter "Inductance MCQs" covers topics of faraday's law of induction, and Lenz's law. The chapter "Kinetic Energy MCQs" covers topics of Avogadro's number, degree of freedom, energy, ideal gases, kinetic energy, molar specific heat of ideal gases, power, pressure, temperature and RMS speed, transnational kinetic energy, and work. The chapter "Longitudinal Waves MCQs" covers topics of Doppler effect, shock wave, sound waves, and speed of sound. The chapter "Magnetic Force MCQs" covers topics of charged particle circulating in a magnetic field, hall effect, magnetic dipole moment, magnetic field, magnetic field lines, magnetic force on current carrying wire, some appropriate magnetic fields, and torque on current carrying coil. The chapter "Models of Magnetism MCQs" covers topics of diamagnetism, earth's magnetic field, ferromagnetism, gauss's law for magnetic fields, indexes of refractions, Maxwell's extension of ampere's law, Maxwell's rainbow, orbital magnetic dipole moment, paramagnetism, polarization, reflection and refraction, and spin magnetic dipole moment. The chapter "Newton's Law of Motion MCQs" covers topics of newton's first law, newton's second law, Newtonian mechanics, normal force, tension. The chapter "Newtonian Gravitation MCQs" covers topics of escape speed, gravitation near earth's surface, gravitational system body masses, gravitational system body radii, Kepler's law of periods for solar system, newton's law of gravitation, planet and satellites: Kepler's law, satellites: orbits and energy, and semi major axis 'a' of planets. The chapter "Ohm's Law MCQs" covers topics of current density, direction of current, electric current, electrical properties of copper and silicon, Ohm's law, resistance and resistivity, resistivity of typical insulators, resistivity of typical metals, resistivity of typical semiconductors, and superconductors. The chapter "Optical Diffraction MCQs" covers topics of circular

aperture diffraction, diffraction, diffraction by a single slit, gratings: dispersion and resolving power, and x-ray diffraction. The chapter "Optical Interference MCQs" covers topics of coherence, light as a wave, and Michelson interferometer. The chapter "Physics and Measurement MCQs" covers topics of applied physics introduction, changing units, international system of units, length and time, mass, physics history, SI derived units, SI supplementary units, and SI temperature derived units. The chapter "Properties of Common Elements MCQs" covers topics of aluminum, antimony, argon, atomic number of common elements, boiling points, boron, calcium, copper, gallium, germanium, gold, hydrogen, melting points, and zinc. The chapter "Rotational Motion MCQs" covers topics of angular momentum, angular momentum of a rigid body, conservation of angular momentum, forces of rolling, kinetic energy of rotation, newton's second law in angular form, newton's second law of rotation, precession of a gyroscope, relating linear and angular variables, relationship with constant angular acceleration, rolling as translation and rotation combined, rotational inertia of different objects, rotational variables, torque, work and rotational kinetic energy, and yo-yo. The chapter "Second Law of Thermodynamics MCQs" covers topics of entropy in real world, introduction to second law of thermodynamics, refrigerators, and Stirling engine. The chapter "Simple Harmonic Motion MCQs" covers topics of angular simple harmonic oscillator, damped simple harmonic motion, energy in simple harmonic oscillators, forced oscillations and resonance, harmonic motion, pendulums, and uniform circular motion. The chapter "Special Relativity MCQs" covers topics of mass energy, postulates, relativity of light, and time dilation. The chapter "Straight Line Motion MCQs" covers topics of acceleration, average velocity, instantaneous velocity, and motion. The chapter "Transverse Waves MCQs" covers topics of interference of waves, phasors, speed of traveling wave, standing waves, transverse and longitudinal waves, types of waves, wave power, wave speed on a stretched string, wavelength, and frequency. The chapter "Two and Three Dimensional Motion MCQs" covers topics of projectile motion, projectile range, and uniform circular motion. The chapter "Vector Quantities MCQs" covers topics of components of vector, multiplying vectors, unit vector, vectors, and scalars. The chapter "Work-Kinetic Energy Theorem MCQs" covers topics of energy, kinetic energy, power, and work.

This comprehensive text on control systems is designed for undergraduate students pursuing courses in electronics and communication engineering, electrical and electronics engineering, telecommunication engineering, electronics and instrumentation engineering, mechanical engineering, and biomedical engineering. Appropriate for self-study, the book will also be useful for AMIE and IETE students. Written in a student-friendly readable manner, the book, now in its Second Edition, explains the basic fundamentals and concepts of control systems in a clearly understandable form. It is a balanced survey of theory aimed to provide the students with an in-depth insight into system

behaviour and control of continuous-time control systems. All the solved and unsolved problems in this book are classroom tested, designed to illustrate the topics in a clear and thorough way. NEW TO THIS EDITION• One new chapter on Digital control systems• Complete answers with figures• Root locus plots and Nyquist plots redrawn as per MATLAB output• MATLAB programs at the end of each chapter• Glossary at the end of chapters KEY FEATURES• Includes several fully worked-out examples to help students master the concepts involved. • Provides short questions with answers at the end of each chapter to help students prepare for exams confidently. • Offers fill in the blanks and objective type questions with answers at the end of each chapter to quiz students on key learning points. • Gives chapter-end review questions and problems to assist students in reinforcing their knowledge. Solution Manual is available for adopting faculty.

The Fourth edition of this well-received text continues to provide coherent and comprehensive coverage of digital circuits. It is designed for the undergraduate students pursuing courses in areas of engineering disciplines such as Electrical and Electronics, Electronics and Communication, Electronics and Instrumentation, Telecommunications, Medical Electronics, Computer Science and Engineering, Electronics, and Computers and Information Technology. It is also useful as a text for MCA, M.Sc. (Electronics) and M.Sc. (Computer Science) students. Appropriate for self study, the book is useful even for AMIE and grad IETE students. Written in a student-friendly style, the book provides an excellent introduction to digital concepts and basic design techniques of digital circuits. It discusses Boolean algebra concepts and their application to digital circuitry, and elaborates on both combinational and sequential circuits. It provides numerous fully worked-out, laboratory tested examples to give students a solid grounding in the related design concepts. It includes a number of short questions with answers, review questions, fill in the blanks with answers, multiple choice questions with answers and exercise problems at the end of each chapter. The Indian Space Research Organisation (ISRO) is the space agency of the Government of India and has its headquarters in the city of Bengaluru. Its vision is to "harness space technology for national development while pursuing space science research & planetary exploration". The eligible candidates will be recruited by ISRO for the post of Scientist / Engineer in the field of Electronics & Communication (ECE). It is true that there are a lot of dedicated people working at this organisation. The kind of culture that exists in ISRO pushes it's employees into a perpetual competition with each other. If you want to work with ISRO there is a great opportunity to be part of ISRO as a Scientist / Engineer, and being a part of ISRO is pride within itself.

Now in its second edition, Electronic Communications Systems provides electronics technologists with an extraordinarily complete, accurate, and timely introduction to all of the state-of-the-art technologies used in the communications field today. Comprehensive coverage includes traditional analog systems, as well

as modern digital techniques. Extensive discussion of today's modern wireless systems - including cellular, radio, paging systems, and wireless data networks - is also included. In addition, sections on data communication and the internet, high-definition television, and fiber optics have been updated in this edition to enable readers to keep pace with the latest technological advancements. A block-diagram approach is emphasized throughout the book, with circuits included when helpful to lead readers to an understanding of fundamental principles. Instructive, step-by-step examples using MultiSIM<sup>®</sup>, in addition to those that use actual equipment and current manufacturer's specifications, are also included. Knowledge of basic algebra and trigonometry is assumed, yet no calculus is required.

The second edition of this book is thoroughly revised as per guidelines of National Medical Commission in accordance with the competency-based curriculum of Biochemistry. The questions not only test the knowledge but also incorporate the clinical/applied aspects of biochemistry which are so important to help the students to think out of the box.

- Uniquely presented in question-answer format covering all categories of questions that are expected in a university exam, in concise manner for rapid revision.
- Covers questions which can be asked in different way (different questions by same answers), this helps students to write answers for these questions in exams.
- Answers presented in bullet points supported with tables, boxes, and figures, helps students to frame answers to questions and replicate the same in exams.
- Complex/Key information is summarized in tables helps in quick revision during exams and also breaks monotony text.
- Applied aspects provided at appropriate places in colored boxes, adds more clarity to the answer provided.
- Recapitulation of points to ponder at the end of text for quick revision.
- Prepares students for both theory and viva voce.
- Reorganized topics in the same order as presented in new curriculum.
- Insight into the biochemistry CBME curriculum with respect to Attitude, Ethics and Communication (AETCOM), Early Clinical Exposure (ECE), and self-directed learning in order to help in the making of the Indian Medical Graduate.
- Ensured coverage of all competency codes integrated within the text as per new competency-based undergraduate curriculum.
- Inclusion of 250 multiple-choice questions, and 500 short questions and viva voce for self-assessment of the topics studied.
- Insertion of clinical cases along with answers to clinical cases at the end of the book to help understand the biochemical basis of disease and its management.

Linked to an online resource centre and instructor's DVD, this textbook introduces the basic principles of marketing. It includes numerous contemporary case studies, chapter summaries and review questions.

The Delhi Metro is a rapid transit system serving Delhi and its satellite cities of Ghaziabad, Faridabad, Gurgaon, Noida, Bahadurgarh and Ballabgarh, in the National Capital Region of India. It is by far the largest and busiest metro in India, and second oldest after the Kolkata Metro. DMRC - JE (Electronics &

Communication Engineer) examination is a national level computer based (CBT) exam conducted once a year to recruit the eligible candidates. Delhi Metro Rail Corporation has notified many vacancies to recruit the eligible candidates for the posts of DMRC- Junior Engineer (EC).

Ready or Not made its mark in 2007 by boldly calling for a field-wide response to the question: “What defines and bounds early care and education as a field of practice?” A dozen years later, this question remains pivotal to the field’s understanding of its present and its aspirations for the future. In this updated and expanded edition, Goffin and Washington reunite to examine the major issues that must still be addressed if children are to be given more and better opportunities. This second edition will help everyone whose work impacts the ECE workforce, including those working directly with children, to deepen their commitment to adaptive and systems work and to develop the leadership capacity needed to become change agents. Ready or not, early childhood education needs to tackle its adaptive challenges. Nothing less will enable it to shift the field’s developmental trajectory, fulfill its potential, and satisfy its obligations to children, families, and society. “The second edition of Ready or Not is a reflective self-examination of the field of early care and education. It is a must-read book.” —Marquita Furness Davis, Bill & Melinda Gates Foundation “Goffin and Washington boldly identify the barriers and opportunities we face.” —Anne Douglass, University of Massachusetts Boston “A must-read for those that are invested in early care and education.” —Tracy Ehlert, State Representative for Iowa House District 70, Cedar Rapids, IA “A must-read for everyone who is committed to the field’s success.” —Ariel Ford, Office of Early Learning, City of Chattanooga

It is for all those medical professionals who are involved in the process of teaching. Although the general principles of teaching remain the same worldwide, this book is tailored to meet the demands of ‘Faculty Development’ in a Medical Institution. This is a text in demand from not only medical teachers, but also from all the faculty of paramedical and allied health courses. • Covers three broad aspects of teaching and learning, viz., (i) Technology in and of education, (ii) Management of education and (iii) Educational research. • Beautifully illustrated educational science applies to medical teachers as well as members of healthcare team and also all those who are involved in the art of teaching. • Authored by experts who have vast experience in medical education at both national and international levels. Their vision, thought process and knowledge get reflected in their writings. • A ‘must read’ book for every young faculty making his/her entry in the educational field as a medical teacher before embarking on educational activities.

The second edition of this well-received text continues to provide a coherent and comprehensive coverage of Pulse and Digital Circuits, suitable as a textbook for use by undergraduate students pursuing courses in Electrical and Electronics Engineering, Electronics and Communication Engineering, Electronics and

Instrumentation Engineering, and Telecommunication Engineering. It presents clear explanations of the operation and analysis of semiconductor pulse circuits. Practical pulse circuit design methods are investigated in detail. The book provides numerous fully worked-out, laboratory-tested examples to give students a solid grounding in the related design concepts. It includes a number of classroom-tested problems to encourage students to apply theory in a logical fashion. Review questions, fill in the blanks, and multiple choice questions offer the students the opportunity to test their understanding of the text material. This text will be also appropriate for self-study by AMIE and IETE students. NEW TO THIS EDITION : • Includes two new chapters—Logic Gates and Logic Families—to meet the curriculum requirements. • Provides short questions with answers at the end of each chapter. • Presents several new illustrations, examples and exercises

Bihar BPSC Judicial Services & APO Previous Papers (18 Papers) Paper 1 Bihar BPSC APO (Assistant Prosecution Officer) Exam Previous Paper (GK) 2009. 3 Paper 2 Bihar BPSC APO (Assistant Prosecution Officer) Exam Previous Paper (Law) 2009. 9 Paper 3 Bihar BPSC APO (Assistant Prosecution Officer) Exam Previous Paper (GK) 2011. 18 Paper 4 Bihar BPSC APO (Assistant Prosecution Officer) Exam Previous Paper (Law) 2011. 24 Paper 5 Bihar BPSC APO (Assistant Prosecution Officer) Exam Previous Paper (GK) 2012. 38 Paper 6 Bihar BPSC APO (Assistant Prosecution Officer) Exam Previous Paper (Law) 2012. 45 Paper 7 Bihar BPSC APO (Assistant Prosecution Officer) Exam Previous Paper (GK) 2013. 57 Paper 8 Bihar BPSC APO (Assistant Prosecution Officer) Exam Previous Paper (Law) 2013. 63 Paper 9 Bihar BPSC Judicial Services Exam Previous Paper (Law) 2012. 77 Paper 10 Bihar BPSC Judicial Services Exam Previous Paper (GK) 2012. 82 Paper 11 Bihar BPSC Judicial Services Exam Previous Paper (Law) 2013. 86 Paper 12 Bihar BPSC Judicial Services Exam Previous Paper (GK) 2013. 97 Paper 13 Bihar BPSC Judicial Services Exam Previous Paper (Law) 2014. 104 Paper 14 Bihar BPSC Judicial Services Exam Previous Paper (GK) 2014. 116 Paper 15 Bihar BPSC Judicial Services Exam Previous Paper (Law) 2017. 123 Paper 16 Bihar BPSC Judicial Services Exam Previous Paper (GK) 2017. 139 Paper 17 Bihar BPSC Judicial Services Exam Previous Paper (Law) 2018. 146 Paper 18 Bihar BPSC Judicial Services Exam Previous Paper (GK) 2018. 160 Bihar Judicial Services & APO Book, Bihar Judicial Services & APO Admit Card , Bihar Judicial Services & APO Syllabus, Bihar Judicial Services & APO Notification, Bihar Judicial Services & APO Exam date, Bihar Judicial Services & APO Recruitment, Bihar Judicial Services & APO Salary, Bihar Judicial Services & APO Eligibility,

The Routledge International Encyclopedia of Education is a unique and major resource for the field of education. It is a comprehensive, single-volume work, arranged alphabetically and comprising around 600 entries. The entries range from definitions of key educational concepts and terms to biographies of key educators and specially written substantial essays on major educational topics.

The volume includes authoritative and critical commentary on historical and contemporary themes; examinations of continuities, changes and emerging issues; and discussions of the educational traditions and features of major countries and continents. The following special features are also included: Unrivalled coverage of education in a single volume Entries by leading international educational researchers Contributors drawn from all over the globe, including Australia, Brazil, Canada, China, Finland, India, Israel, Japan, New Zealand, South Africa, the United Kingdom and the United States A distinguished international advisory board Fully cross-referenced and indexed Suggestions for further reading Offering insight into the world of education in an interesting, informed and sometimes provocative way, The Routledge International Encyclopedia of Education is an invaluable work of reference for educators, students, researchers and policy makers in education and related fields internationally.

Dear Academicians, Readers and Educators, We are pleased to present the issue of the International Journal of Secondary Metabolite as a special issue entitled 'I. International Congress on Medicinal and Aromatic Plants - "Natural And Healthy Life"'. This special issue contains some of scientific studies presented in the congress. Hosting the I. International Medical and Aromatic Plant Congress, held in Konya on 9-12 May 2017, by the cooperation T.R. Ministry of Forestry and Water Affairs, General Directorate of Forestry and Necmettin Erbakan University was a great honor for us. The total number of abstract submission for the congress was 1923. After the scientific evaluation, 85 abstracts were rejected and 244 abstracts were withdrawn. As a result, a total of 1594 abstracts were accepted for presentation: 280 of them as oral presentation and 1314 as poster presentation. 2604 authors were contributed and 1543 participants were participated to the congress. The studies presented in the congress was electronically shared in terms of accessibility. The authors of 220 papers, presented in the congress, submitted to the International Journal of Secondary Metabolite for publication. 70 of them were published and 150 full papers were rejected due to revision deadline, reviewing process etc. after reviewing process. I would like to special thank to the Journal founder for publishing and also to the editor, editorial board and authors for contributing this issue. Best regards. Dr. Muzaffer EKER Rector of Necmettin Erbakan University TC Orman ve Su İşleri Bakanlığı, Orman Genel Müdürlüğü ve Necmettin Erbakan Üniversitesi paydaşlarında, Necmettin Erbakan Üniversitesi ev sahipliğinde 9-12 Mayıs 2017 tarihlerinde Konya'da gerçekleştirilen I. Uluslararası Tıbbi ve Aromatik Bitkiler Kongresi'nin açılış programı, Orman ve Su İşleri Bakanlığı Sayın Prof. Dr. Veysel Eroğlu, Sağlık Bakanlığı Prof. Dr. Recep Akdağ, Milletvekilleri, Konya Valisi Yakup Canbolat, Konya Büyükşehir Belediye Başkanı Tahir Akyürek, Afyon Kocatepe Üniversitesi Rektörü Prof. Dr. Mustafa Solak, Necmettin Erbakan Üniversitesi Rektörü Prof. Dr. Muzaffer Eker, Orman Genel Müdürü, Dekanlar, Akademisyenler, Daire Başkanları, öğrenciler ve

sektörde faaliyet gösteren i?adamlar?n?n kat?l?m?yla ger?ekle?tirilmis?tir. Kongre, son y?llarda yap?lan en geni? kat?l?ml? bilimsel organizasyon olma özelli?i ta??maktad?r. Kongreye t?bbi ve aromatik bitkilerin dahil oldu?u pek ?ok alandan tan?nm?? ve se?kin akademisyenler kat?lm??t?r. Davetli Konu?mac? olarak kongreye kat?lan Mauritius Üniversitesi'nden Vidushi Neergheen-Bhujun, Handong Global Üniversitesi'nden Jong Bae Kim, Malezya'dan ve Ege Üniversitesi'nden emekli Prof. Dr. Münir Öztürk, Yeditepe Üniversitesi'nden Prof. Dr. Erdem Ye?ilada, Sebahattin Zaim Üniversitesi'nden Prof. Dr. Adem ELGÜN, TÜB?TAK Marmara Ara?t?rma Merkezi'nden Prof. Dr. Cesarettin Ala?alvar, Hacettepe Üniversitesi'nden Prof. Dr. ?rem Tatlı Çankaya ve Cumhurba?kan? ba?dan??man? Prof. Dr. ?brahim Adnan Sara?o?lu bunlar aras?nda say?labilir. Kongrede üç gün boyunca yedi ayr? salonda a?a??daki ba?l?klar alt?nda sözlü ve poster bildiriler sunulmu? ve yo?un kat?l?m gözlenmi?tir. ? T?bbi Bitki, Aromatik Bitki ve Mantar Üretimi ? T?bbi ve Aromatik Bitkisel Ürün Sanayii ? Fonksiyonel G?dalar, Bitkisel Çaylar ve Nutrasötikler ? Tabii Kozmetik Ürünler ? Aromatik Bitkiler ve Uçucu Ya?lar ? Farmakoloji, Farmakognozi (Toksikoloji, Farmakovijilans) ? Tabii Bitki Örtüsünün Korunmas? ve Etnobotanik ? T?bbi ve Aromatik Bitkilerde Antropoloji, Sosyo-Ekonomi, Kültür ve Etik ? T?bbi ve Aromatik Bitkilerin Ak?lc? Kullan?m? Kongrede sözlü sunular Lokman Hekim, Farabi, ?bn-i Sina, Ak?emsettin, Mevlâna ve Balo Salonlar?nda, poster sunular ise Poster Salonunda ger?ekle?tirilmis?tir. Kongre süresince; Selva Redoks, Tales Analitik, Dr. Mustafa Mücahit Y?lmaz, Sem, Yap?lcan, Biosan firmalar? ile Orman Su ??leri Bakanl???, Konya Büyük?ehir Belediyesi Park ve Bah?eler Daire Ba?kanl???, NEÜ G?da Mühendisli?i Bölümü, NEÜ Sa?l?k Bilimleri Fakültesine ait stantlarda t?bbi ve aromatik bitkilerle ilgili ürün ve yay?n tan?t?mlar? ger?ekle?tirilmis?tir. Orman Genel Müdürlü?ü kongreye ödüllü foto?raflar sergisi ile renk katm??t?r. Kongremizin düzenlenmesinde 12 Yürütme Kurulu, 24 yerli 25 yabanc? olmak üzere 49 Bilim Kurulu ve 11 Dan??ma Kurulu üyesi görev yapm??t?r. Kongremize toplam 1543 kat?l?mc? ba?vurmu? olup, kat?l?mc?lar içerisinde 520 ö?retim eleman?, 483 ö?retim üyesi, 429 ö?renci ve 111 sektör temsilcisi/dinleyici yer alm??t?r. Kongremize 524 bay kat?l?mc?, 1019 bayan kat?l?mc? ba?vurmu?tur. Kongreye bildiri gönderen 2604 yazardan; 382 adeti ziraat, 321 adeti g?da, 311 adeti orman, 270 adeti mühendislik, 225 adeti sa?l?k, 161 adeti diyetisyenlik, 157 adeti veterinerlik, 145 adeti farmakoloji, 104 adeti eczac?l?k, 37 adeti di? hekimli?i ve 491 adeti kozmetik, peyzaj, sosyal, kültürel vb. di?er alanlarda çal??t??? belirlenmi?tir. Kongreye toplam bildiri ba?vurusu 1923 adet olup, bilimsel de?erlendirme sonucu 85 adet reddedilmi?, 244 adet bildiri geri çekilmi?tir. Sonuç olarak 280 bildiri sözlü bildiri olarak ve 1314 bildiri poster bildiri olmak üzere toplam 1594 bildiri kabul edilmi?tir. Sözlü bildiriler konular?na uygun olarak 48 oturumda, poster bildiriler ise 14 oturumda sunulmu?lard?r. Bu bildiriler içerisinde yazarlar taraf?ndan bildiri kitab?nda bas?lmak üzere 159 tam metin gönderimi ger?ekle?tirilmis?, ayn? zamanda uluslararası alan indeksli International Journal of Secondary Metabolite dergisine

de 173 tam metin makale gönderilmi? olup toplam 332 adet tam metin haz?rlanm??t?.r. Kongre web sayfam?za 45 bin tekil ziyaretçi girmi? ve 4 milyondan fazla hit olu?turmu?lard?.r. Kongre duyurular? ve hat?rlatmalar? için 150 binden fazla mail gönderilmi? olup, yakla??k 15 bin mail al?nm??t?.r. Kongre ile ilgili sekreteryaya üzerinden yakla??k 6000 görü?me yap?lm??t?.r. Yukarda ifade edilen konferans, bildiri oturumlar? ve toplant?larda; t?bbi ve aromatik bitkiler sektöründe ortaya ç?kan reform ihtiyaçlar?, mevzuat, ula??m ve kalite sorunlar? vb. konular tart??lm??t?.r. Ortaya ç?kan sonuçlar, kongre düzenleme kurulu taraf?ndan sonuç bildirgesi haline getirilmi?tir. Sonuç Bildirgesi ile tam metin kongre kitab? e-kongre kitap olarak kongre payda?lar?na ait web siteleri ile kongre web sitesinden (www.tabkon.org) kamuoyu ile payla??lacakt?.r. SONUÇ ve DE?ERLEND?RME RAPORU Kongre de?erlendirme oturumu soru-cevap k?sm?ndan elde edilen sonuçlar ile de?erlendirmelerini gönderen bilim insanlar?n görü?leri, a?a??da yer ald??? gibi özetlenebilir: 1- Bitkisel ürünlerin sa?lık üzerine olumlu etkilerinin oldu?u bilinmektedir. Ancak bu ürünlerin yanl?? kullan?m? nedeniyle karaci?er nakline kadar gidebilen hayati ve ciddi sa?lık sorunlar?na yol açabildi?i görülmektedir. Sektörün ve vatanda??n sorunlar?na yönelik çözüm üretmek amacıyla Bakanl?klar (Orman ve Su ??leri Bakanl???, Sa?lık Bakanl???, G?da, Tar?m ve Hayvanc?lık Bakanl??? ve Gümrük ve Ticaret Bakanl???) aras?nda bir TIBB? VE AROMAT?K B?TK?LER KOORD?NASYON ÜST KURULU olu?turulmal?d?.r. 2- Bölgemizin t?bbi ve aromatik bitkiler sektöründe; ilk olarak bölgelere göre t?bbi-aromatik bitki üretim planlama çal??malar? yap?lmal?d?.r. Bölgelere göre ekonomik de?eri ve üretim potansiyeli yüksek bir veya birkaç bitki türü belirlenmelidir. Bu bitki türünün do?adan toplama ve kültüre al?narak üretilebilecek türleri ayr? ayr? belirlenmelidir. Gerekli ürünün belirlenmesi, üretim planlamas? ve fiyatland?rma çal??malar?n? yapmak için yerelden; STK, kamu ve özel sektör uzmanlar?n?n yer ald??? farklı disiplinlerden müte?ekkil bir komite kurulmal?d?.r. Bu belirlenen bitkilerin gerek toplanmas? gerekse kültüre al?narak üretilmesi için gerekli organizasyonlar ve destekler sa?lanmal?d?.r. 3- Ülkemiz çok zengin do?as?na ra?men, hala i?lenmemi? bir bitki ihracatç?s? olmaya devam etmektedir. Ülkemizde bitkisel ilaç sanayinin geli?memesi, bunun yan?nda parfümeride kullan?lan sentetik ürünlerin daha ucuz olmas? gibi nedenlerle, do?al uçucu ya?lar?n ikinci planda kalmas?, t?bbi ve aromatik bitkilerin üretim olanaklar?n? k?s?tlam??t?.r. 6 4- T?bbi ve aromatik bitkilerin mevcut durumunu korumak ve artan pazarda yer almas?n? sa?lamak için piyasan?n istedi?i ürünleri istedi?i miktar ve kalitede sunmam?z önem arz etmektedir. Do?al zenginliklerimizin süreklili?i ve gelecekteki ara?t?rmalar için gen kaynaklar?n?n korunmas? (insitu ve ex-situ) önemlidir. Ancak t?bbi ve aromatik bitki üretimini do?adan toplayarak kar??lamam?z mümkün de?ildir. Yeterli miktarda, standart ve kaliteli ürün üretmek için bu bitkilerin kültüre al?nmas? ve ?slah? önem arz etmektedir. T?bbi aromatik bitkilerde ülkemiz endemik bitkilerinin isimlendirilmesinde terminoloji birlikteli?i ve bölgesel co?rafi farklılıklar? tanımlay?c? temel bilgilerin

netle?tirilmesi gerekmektedir. Ayr?ca ?lkemiz floras?na uygun ?e?it ?slah?na y?nelik proje ?al??malar? yapt?r?lmas? gerekmektedir. (k?lt?re alma, adaptasyon, ?slah vb.) 5- T?bbi ve aromatik bitkilere ait d?zenli istatistiksel veriler bulunmamaktad?r. Bu arz-talep ili?kisi dikkate al?narak ?retim yapmay? zorla?t?rmaktad?r. Bu nedenle bitkilerle ilgili bilgilerin toplanaca?? ve ula??labilece?i veri bankalar? olu?turulmal?d?r. Yurt i?i ve yurt d???nda ticareti yap?lan do?al bitkilerin tam bir listesi, toplay?c?, arac?, ihra? eden firma ve ilgili devlet kurumlar?yla birlikte haz?rlanmal? ve bir veri taban? olu?turulmal?d?r. T?bbi ve aromatik bitkilerin do?adan toplanmalar? kontrol alt?na al?nmal?, nesli tehlikede olanlar koruma alt?na al?nmal?, ?ncelikle tar?m?na ge?ilmeli, t?m bu bilgiler olu?turulacak veri taban?nda yer almal?d?r. 6- En ?ok ihracat? yap?lanlar d???ndaki bitkisel ?r?nler ihracat istatistiklerinde "di?erleri" fasl?nda yer almaktad?r. Bu y?zden ?lkemizden ihra? edilen droglar?n tam bir listesine ula?abilmek m?mk?n olmamaktad?r. Bu bitkiler ?zerinde sa?l?kl? ?al??malar yap?labilmesi i?in bunlar?n ticaretlerinin izlenmesi, ihracat ve ?zellikle ?retim miktarlar?n?n ve bunlar?n ne kadar?n?n do?adan toplama ve ne kadar?n?n da tarla ?retiminden geldi?inin istatistiklerde a?k ve net olarak yer almas? zorunlulu?u bulunmaktad?r. 7- T?keticisi ve sanayici taleplerine cevap veren kaliteli ve standart ?r?n i?in ?slah edilmi? ?e?itlerin geli?tirilmesi, uygun ekolojik ko?ullar?n belirlenmesi, do?al bitkilerin do?aya zarar vermeden zaman?nda toplanmas?, hasat sonras? i?lemler ve i?leme teknolojisinin belirlenmesi t?bbi ve aromatik bitkilerde ?retim ve pazar olanaklar?n? artt?racakt?r. B?lgelere g?re, birka? ?r?nde ?z?t ve etken madde ?retimine ge?ilmesi, ?retilen ?r?nler i?in markala?ma ve standart olu?turma 7 faaliyetlerinin y?r?t?lmesi elzemdir. Ayr?ca ham madde ?retimini ikincil ?r?nlere d?n?t?recek tar?ma dayal? sanayi tesislerinin b?lgeye kazand?r?lmas? olduk?a ?nemlidir. 8- G?da, Tar?m ve Hayvanc?l?k ?l m?d?rl?klerinin, fide ve tohum da??t?lmas? noktas?nda il ?zel idaresiyle birlikte projeler yapmas?n?n ?ok etkili olacakt?r. 9- T?bbi ve aromatik bitkiler alan?nda faaliyet g?steren ?retici, toplay?c?, ihracat??, sanayici, ara?t?rmac? ve di?er t?m payda?lar?n koordinasyonunu sa?layacak bir sistem ve ara?t?rma sonu?lar?n?n prati?e aktar?lmas? i?in, ara?t?r?c?, sanayici, ?retici aras?nda bilgi ak???n? sa?layacak yay?n sistemi olu?turulmal?d?r. 10- Genetik kaynaklar kullan?larak tar?ma ve ?lke ekonomisine endemik, vb. ekonomik de?eri olan bitkiler kazand?r?lmal?d?r. Genetik materyal(tohumluk-fide) yetersizli?ini gidermek i?in ?al??malar yap?lmal?d?r. 11- Ta??i? (yabanc? madde kar??t?rma) problemine kar?? standardizasyon sa?lanmal?d?r. 12- Aktar d?kkan? a?mak i?in T?bbi ve Aromatik B?l?m mezunu olma ?art? getirilmelidir. 13- ?ki y?ll?k olan e?itim s?resi yetersizdir. Avrupa ?lkelerindeki gibi Medikal Herbalist'lik ?eklinde uygulamal? en az ?? y?ll?k e?itim verilmelidir. 14- Hali haz?rdaki m?fredat g?zden ge?irilerek bu konudaki s?z sahibi ?lkelerdeki gibi e?itim verilmelidir. Okullar aras?nda m?fredat birli?i sa?lanmal?d?r. E?itimcilerin bu konuda yetkinli?i ?art ko?ulmal?d?r. Meslek gereklerine uygun, donan?ml? mezunlar?n yeti?ebilmesi i?in e?itime uygun altyap? sa?lanmal?d?r. 15- Bu

bölüm mezunlarına yeterli eğitim verilerek “herbalist” ünvanı verilebilir. Ve yasalarca da tanınabilir. Mevcut ünvan olan “Tıbbi ve Aromatik Bitkiler Teknikeri” uzun bir ünvan olduğundan daha akılda kalıcı bir ünvan için düzenleme yapılmalıdır. 16- Baharat, bitkisel gıda takviyesi, doğal kozmetik, bitki çayı, bitkisel ilaç üreten işletmeleri ile bu tür ürünlerin satışının yapılması eczane, aktar, organik ürün dükkanlarında bölüm mezunlarının çalıştırılması zorunluluğu yasalarca dikkate alınmalıdır. 17- Bilimsel araştırmaları sonuçları pratiğe aktarılması noktasında çalışmaların yapılması gerekmektedir. Elde edilen sonuçların ulusal ve uluslararası ölçüde katkı yapması beklenmektedir. 18- Ülkemizde bitkisel ilaç sanayinin gelişmesine yönelik çalışmalara destek verilmelidir. 19- Uluslararası ticarete önem taşıyan türlerin üretimi ve ihracatının arttırılması gerekmektedir. 20- Pazar garantili bahçe-tarla uygulamalarına yönelik çalışmalar ile markalaşmaya yönelik çalışmalar yapılmalıdır. Ayrıca stratejik değeri olan ürünlerin üretimine gidilmelidir. 21- Herhangi bir zaman diliminde popüler olan tür ya da ürün üzerine yoğunlaşmak yerine her dönem önemini kaybetmeyen türlere önem verilmelidir. 22- Tıbbi ve aromatik bitkilerin tarımı için orman arazileri yerine tarımsal alanların ayrılması gereklidir. 23- Tıbbi ve aromatik bitki analizi ile ilgili yetkin laboratuvarlar aracılığıyla kriterler belirlenmeli (bileşenlerin içeriği ve miktarı) ve yapılacak çalışmalarda bu standartlar baz alınmalıdır. 24- Bitkilerin doğru tanımlanmaması önemli bir hata olarak karşımıza çıkmaktadır. Bu konuda yetkinliği olan kişilerle ortak çalışılmasıdır. 25- Üretim teknolojileri ile ilgili çalışma yapmak isteyen yatırımcılara gerekli eğitimler bakanlık vb. kurumların desteğiyle verilmelidir. 26- Fitoterapi konusunda Sağlık Bakanlığının desteği gereklidir. 27- Gıda takviyesi olarak satılan ürünlerin ruhsatlandırılması Sağlık Bakanlığı tarafından yapılmalıdır. 28- Bilimsel çalışmalara konu olan bitkiler aktar veya pazardan temin edilmemeli, doğal ortam veya kültür ortamından alınmalı. Bu tür bildirimler bilimsel kongrede kabul edilmemelidir. 29- Tıbbi ve aromatik bitkilerin üretimi esnasında zirai mücadelede ruhsatlı pestisit üretimi üzerine çalışmalar yapılmalıdır. 30- Kongre esnasında posterlerin okunabilmesi için daha uzun süre asılı kalmalıdır. Şilave olarak bu amaca dönük olarak posterler elektronik ortamda yayımlanmalıdır. 31- Kongrede kullanılan dilin Türkçe ve İngilizce olması önem arz etmektedir. 32- Etnobotanikte 70 farklı çeşit bitkiye “kekik” adı veriliyor. Bunu giderecek çalışmalar yapılmalıdır. 33- Sarı ve kırmızı kantaronun etki mekanizmaları farklı olması nedeniyle, bu bitkiler karıştırılarak hataen birbirinin yerine kullanılabilir. Bu yüzden bazı sağlık problemleri yaşanabilmektedir. Bu ve benzeri durumların giderilmesi için gerekli çalışmalar yapılmalıdır. 34- Lavanta vb. endemik bitkilerin ülke ekonomisine kazandırmaları için çalışmalar yapılmalıdır. 35- Tıbbi ve aromatik bitkiler üzerine farklı bilim disiplinlerinin birliği içinde yürütülecek multidisipliner çalışmalar ve toplantılarının sayısı arttırılmalıdır. Fakat bu toplantılar belli bir koordinasyon içinde yürütülmelidir. Benzer tarzda fazla sayıda yakın tarihli ve içerikli toplantılar düzenlenmektedir. 36- Tıbbi ve aromatik

bitkilerle ilgili kongrelerin mutad olarak ulusal ve uluslararası bazda düzenlenmesi gerekir. Bunun için 2 yılda bir ulusal 4 yılda bir uluslararası kongre düzenlenmesine karar verilmiştir. Gerçekleştirilecek kongrelerden kaçacak sonuç ve öneriler, akademik, ekonomik ve üretim/ürün/faydalı model/yeni teknolojiler çöktürmelerinin olması için azami özen ve gayretin gösterilmesi büyük öneme sahiptir. 37- Bir sonraki Ulusal Tıbbi ve Aromatik Bitkiler Kongresi'nin Afyon Kocatepe Üniversitesi ev sahipliğinde 2018-2019 eğitim öğretim döneminde Afyon'da yapılmasına karar verilmiştir. Kongre sonuçlarının; ülkemize, bilim insanlarına, üreticilere, sanayicilere ve bütün insanlığa olumlu katkı yapması dileğiyle...16.05.2017- Konya

[Copyright: c36c512d10b765ccd2a21b36faf6afaf](https://www.c36c512d10b765ccd2a21b36faf6afaf)