SRI KRISHNA INSTITUTE OF TECHNOLOGY
Hesaraghatta Main Road, Chikkabanavara, Bengaluru:560 090.

DEPARTMENT OF BASIC SCIENCE

Course Code: 21MAT11

CO1: Study and analyze the bentness of curve using Radius of curvature and its applications to evolutes and involutes.

CO2: Understand the notion of partial differentiation to calculate rates of change of multivariate functions and solve problems related to composite functions and Jacobins

CO3: Solve first order Linear and non linear differential equation analytically using standard methods.

CO4: Solve various methods through higher order differential equations and also linear ordinary differential equations

CO5: Solve system of linear equations using Matrix theory and to compute eigenvalues and eigenvectors for matrix diagonalization process.

Course Code: 21MAT21

CO1: Apply the concept of change of order of integration and change of variables to evaluate multiple integrals and their usage in computing area and volume.

CO2: Illustrate the applications of multivariate calculus to understand the solenoidal and irrotational vectors and also exhibit the inter dependence of line, surface and volume integrals.

CO3: Formulate physical problems to partial differential equations and to obtain solution for standard practical PDE's

CO4: Apply the knowledge of numerical methods in modelling of various physical and engineering phenomena.

CO5: Solve first order ordinary differential equations arising in engineering problems.

Course Code: 21PHY12/22

CO1: Understand the basics concepts of oscillations and waves and their applications; and production of shockwaves and its applications.

CO2: Demonstrate the quantization of energy for microscopic system.

CO3: Illustrate the point to point communication system and production of Laser.

CO4: Apply the knowledge in problem solving and construct the applications of the materials

CO5: Analyze the importance of XRD and Electron Microscopy in Nano material characterization

Course Code: 21PHYL16/26

CO1: Understand the oscillations, frequency and resonance concept and their Practical applications.

CO2: Operate different instruments and analyse the experiments results

CO3: Explain the concepts of diffraction of light, Fermi energy and magnetic effect of Current

CO4: Construct the circuit and analyse the principles of operation of optical fibers and

Semiconductor devices using a simplecircuits.

Course Code: 21CHE12/22

CO1: Understand the electrochemical energy systems such as electrodes, and batteries.

CO2: Explain the fundamental concepts of corrosion, its control and surface modification methods namely electroplating and electroless plating

CO3: Enumerate the importance, synthesis and applications of Polymers, Understand properties and application of nonmaterials.

.CO4: Describe the principles of green chemistry; understand properties and application of alternative fuels.

CO5: Illustrate the fundamental principles of water chemistry, applications of volumetric and analytical instrumentation

Course Code: 21CHEL16/26

CO1: Understand the Determinations of the pKa and coefficient of Viscosity of a given organic liquid.

CO2: Estimate the amount of substance present in the given solution using Potentiometric, Conductometric and Colorimetric.

CO3: Determine the total hardness and chemical oxygen demand in the given solution by volumetric analysis method.

CO4: Estimate the percentage of Nickel, copper and Iron in the given analyte solution by titration method.

CO5: Demonstrate flame photometric estimation of sodium &potassium and the synthesis of nonmaterial's by Precipitation method.

Course Code: 21PSP23

CO1: Elucidate the basic architecture and functionalities of a computer and also recognize the hardware parts.

CO2: Apply programming constructs of C language to solve the real world problems.

CO3: Explore user defined data structures like arrays in implementing solutions to problems like searching and sorting.

CO4: Design and Develop Solutions to problems using modular programming constructs using functions.

CO5: Explore user defined data structures like structures, unions and pointers in implementing solutions.

Course Code: 21CPL17

CO1: Define the problem statement and identify the need for computer programming.

CO2: Make use of C complier, IDÉ for programming, identify and correct the syntax and syntactic errors in programming.

CO3: Develop algorithm, flowchart and write programs to solve the given problems.

CO4: Demonstrate use of function, recursive functions, arrays, strings,structures and pointers in problem solving.

CO5: Document the inference and observations made from the implementation.

Course Code: 21ELE13

CO1: Analyze and solve D. C. networks by applying various laws and theorems

CO2: Understand and analyze the AC single phase and three phase electric circuits.

CO3: Explain the principle of operation and construction Electrical Machines and its applications.

CO4: Explain the concepts of electric power transmission and distribution of power .

CO5: Apply the concept of electromagnetism to understand transformer operation its applications.

CO6: Understand the concepts of domestic wiring

Course Code: 21ELEL17

CO1: Verify KCL and KVL and Maximum Power Transfer theorem for DC circuits.

CO2: Compare power factors of different lamps.

CO3: Determine the Electrical quantities of an electrical circuit and power consumed in a 3 phase load.

CO4: Determine earth resistance and understand to do staircase wiring.

C05: Measure the electrical parameters of an electric circuit by measuring instruments.

CO6: Describe the effects of open and short circuits in simple circuits.

Course Code: 21CIV14

CO1: To make students learn the scope of various fields of civil engineering.

CO2: To develop students' ability to analyse the problems involving forces, moments with their applications.

CO3: To develop the student's ability to find out the centre of gravity and moment of inertia and their applications.

CO4: To make the students learn about kinematics and kinetics and their applications

Course Code: 21ELN14

CO1: Understand the concepts of electronic circuits encompassing power supplies, amplifiers and oscillators.

CO2: Demonstrate the basics of digital logic engineering including data representation, circuits and the microcontroller system with associated sensors and actuators.

CO3: Illustrate the characteristics and technological advances of embedded system

CO4: Understand the fundamentals of communication engineering & Apply the spanning from frequency spectrum to the various circuits involved including antennas.

CO5: Analyze the different modes of communications from wired to wireless and the computing involved.

Course Code: 21EVN15/25

CO1: Understand the Knowledge of Engineering Geometry and solid edge software and create Engineering drawings on Orthographic Views.
(Points, Lines, Planes)

CO2: Draw the orthographic projections of simple solids.

CO3: Draw the isometric projection of Simple solids and also convert simple isometric drawings into orthographic views.

CO4: Draw the development of lateral surface of simple solids.

CO5: Identify the interdisciplinary engineering components or systems through its graphical representation.

Course Code: 21EME15/25

CO1: Understand basic concepts of mechanical engineering in the fields of energy and its utilization, through demonstrations.

CO2: Understand basic concepts of mechanical engineering in the fields of materials technology, and various joining processes through demonstrations.

CO3: Understand the application of energy sources working principle of IC Engines and Refrigeration.

CO4: Understand the application of energy sources in Power generation and power transmission systems in day to day activities.

CO5: Apply the skills in developing simple mechanical elements and processes.

Course Code: 21IDT19/29

CO1: Appreciate various design process procedure

CO2: Generate and develop design ideas through different technique

CO3: Identify the significance of reverse Engineering to Understand products

CO4: Draw technical drawing for design ideas

Course Code: 21SHF19/29

CO1: Understand Health and wellness (and its Beliefs)

CO2: Acquire Good Health & its balance for positive mindset

CO3: Inculcate and develop healthy lifestyle habits for good health.

CO4: Create of Healthy and caring relationships to meet the requirements of MNC and LPG world

CO5: Adopt innovative & positive methods to avoid risks from harmful habits in their campus & outside the campus.

CO6: Positively fight against harmful diseases for good health through a positive mindset.

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