



Sri Indu Institute of Engineering & Technology

Recognized Under 2(f) of UGC Act 1956

Approved by AICTE, New Delhi Affiliated to JNTU H. Hyderabad


Main Road, Sheriguda, Ibrahimpatnam, R.R. Dist., 501 510

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<https://sriet.ac.in>

Program : I B.TECH	Academic Year : 2020-21	Semester : I & II
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1	I/I	MA101BS	Mathematics – I	CO1: Analyze the solution of the system of linear equations in matrix representation.
				CO2: Find the diagonalization of the matrix.
				CO3: Compare the convergence between two tests for the given sequence.
				CO4: Evaluate Improper integrals using Beta and Gamma functions.
				CO5: Explain the concept of total derivative.
				CO6: Find the Maxima and Minima of functions of two variables and three variables.
2	I/I	AP102BS	Applied Physics	CO1: Explain the fundamental concepts on Quantum behavior of matter.
				CO2: Explain the working principle and structure of various semiconductors.
				CO3: Describe the characteristics of semiconductor photo detectors.
				CO4: Distinguish the principle of lasers.
				CO5: Apply the fiber optics principles in various communications.
				CO6: Analyze the Characteristics of dielectric and magnetic material.
3	I/I	CS103ES	Programming for Problem Solving	CO1: Recognize various types of operators, data types and understand the definition of algorithm and flowchart.
				CO2: Apply various Branching/Looping statements, structure of c program to solve the given problem.
				CO3: Classify homogeneous derived data types and use them to solve the problems.
				CO4: Distinguish Text files and Binary Files and define the pre-processor directives, write simple c program using File handling functions.
				CO5: Illustrate how structured programming, Recursion works and write programs using recursion to solve problems and memory allocation.
				CO6: Apply Algorithms for searching and sorting techniques.
				CO1: Broad idea in engineering drawing and conventions. Application of geometric and curves drawing in tool design such as helical curve in the design of drill bits.
				CO2: Understanding orthographic projections in sense projections of points, lines, Planes.
				CO3: Developing a clear idea on projections of solids and auxiliary views and sectional views.


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4	I/I	ME104ES	Engineering Graphics	<p>CO4: Acquiring practical knowledge by means of development of surface drawing, and intersection of solids.</p> <p>CO5: Thorough knowledge in Isometric views and conversion of isometric views into orthographic views and vice versa also acquiring prerequisite knowledge in CAD commands and package.</p>
5	I/I	CH102BS	Chemistry	<p>CO1: Analyze the type of crystal field splitting in complexes.</p> <p>CO2: Develop the water free from hardness using water technology.</p> <p>CO3: Solve the problems of E.M.F, Electrode Potential.</p> <p>CO4: Recognize which part of alloy acts as Anode.</p> <p>CO5: Predict the Configuration of the given compound.</p> <p>CO6: Apply the spectral data to find the structure of a compound.</p>
6	I/I	EE103ES	Basic Electrical Engineering	<p>CO1: Known's the knowledge about basic components of electrical and reduction method in network analysis in DC.</p> <p>CO2: Gains the knowledge about AC quantities.</p> <p>CO3: Gains the knowledge about the energy transfer.</p> <p>CO4: Gains the knowledge about use of 3-ph transformers.</p> <p>CO5: Analysing the energy conversion systems in electrical.</p> <p>CO6: Gains knowledge about basic electrical installation.</p>
7	I/I	EN105HS	English	<p>CO1: Use English language effectively in spoken and written forms.</p> <p>CO2: Inculcate reading habits & gain effective reading skills and vocabulary.</p> <p>CO3: Develop listening skills.</p> <p>CO4: Comprehend the given text and respond appropriately.</p> <p>CO5: Communicate confidently in various contexts and different cultures.</p> <p>CO6: Acquire basic proficiency in English including L.S.R.W skills.</p>
8	I/I	PH102BS	Engineering Physics	<p>CO1: Explain the fundamental concepts on Quantum behaviour of matter.</p> <p>CO2: Explain the working principle and structure of various semiconductors.</p> <p>CO3: Describe the characteristics of semiconductor photo detectors.</p> <p>CO4: Distinguish the principle of lasers.</p> <p>CO5: Apply the fibre optics principles in various communications.</p> <p>CO6: Analyze the Characteristics of dielectric and magnetic material.</p>
9	I/I	AP105BS	Applied Physics Lab	<p>CO1: Classify the matter wave behavior using quantum principles.</p> <p>CO2: Distinguish the intrinsic and extrinsic semiconductors.</p> <p>CO3: Recognize the fundamental characteristics of optoelectronic devices.</p> <p>CO4: Recognize the fundamental applications of</p>

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				optoelectronic devices. CO5: Demonstrate competency and understanding of the concepts found in lasers and fiber optics on a broad base of knowledge in physics. CO6: Define the Basic principle of Electromagnetic laws and their applications in different materials.
10	I/I	CS106ES	Programming for Problem Solving Lab	CO1: Solve the Problems by using Operators and type casting. CO2: Write the programs based on Branching and Looping statements. CO3: Illustrate the Problems by using the recursion and Functions. CO4: Analyze the programs based on Derived Data type. CO5: Develop the programs using Files. CO6: Solve the Problems by using the Searching and Sorting Technique.
11	I/I	CH106BS	Engineering Chemistry Lab	CO1: Acquire the scientific attitude by means of distinguishing, analyzing and solving Engineering problems. CO2: Interpret the knowledge of atomic orbital's, molecular and electronic changes, Band theory related to Conductivity. CO3: Differentiate between hard & soft water and their effects when used in Thermal Power Plants. CO4: Summarize the principles and concepts of Electrochemistry, Corrosion and Mechanism associated with corrosion control methods. CO5: Apply the concept of basic Spectroscopy to medical and other fields. CO6: Compare the Configurational and conformational analysis of molecules and Reaction mechanisms.
12	I/I	EN107HS	English Language and Communication Skills Lab	CO1: Better understanding of nuances of English language through audio-visual experience and group activities. CO2: Neutralization of accent for intelligibility. CO3: Speaking skills with clarity and confidence which in turn enhance their employability skills.
13	I/I	PH105BS	Engineering Physics Lab	CO1: Classify the Newton's laws both in Cartesian, cylindrical and spherical coordinates. CO2: Distinguish the different types of mechanical and electrical harmonic oscillators. CO3: Recognize the fundamentals of transverse waves of strings in one dimension. CO4: Recognize the fundamentals of longitudinal waves of strings in one dimension. CO5: Demonstrate competency and understanding of the concepts found in Wave Optics on a broad base of knowledge in physics.

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				<p>CO6: Define the Basic principle of LASERS and their application as light propagation in fiber optics and optical fibers Properties.</p>
14	I/II	MA201BS	Mathematics – II	<p>CO1: Identify whether the given differential equation of first order is exact or not and analyze the applications of differential equations.</p> <p>CO2: Solve the second and higher order differential equations find the particular integrals for the given non homogeneous differential terms.</p> <p>CO3: Evaluate the multiple integrals and apply the concept to find areas, volumes of sphere and rectangular parallelepiped.</p> <p>CO4: Analyze the double integral and triple integral concept in polar form and cartesian form.</p> <p>CO5: Differentiate the problems on gradient, divergent and curl of a vectors.</p> <p>CO6: Summarize the line, surface and volume integrals and converting them in theorems.</p>
15	I/II	ME203ES	Engineering Mechanics	<p>CO1: Determine resultant of forces acting on a body and analyse equilibrium of a body subjected to a system of forces.</p> <p>CO2: Describe static equilibrium of particles and rigid bodies both in two dimensions and also in three dimensions.</p> <p>CO3: Solve problem of bodies subjected to friction.</p> <p>CO4: Find the location of centroid and calculate moment of inertia of given section.</p> <p>CO5: Understand kinetics and kinematics of a body undergoing rectilinear, curvilinear, rotatory motion and rigid body motion.</p> <p>CO6: Solve the problems using work energy equations for translations, fixed axis of rotation and plane motion.</p>
16	I/II	EE208ES	Basic Electrical Engineering Lab	<p>CO1: Understand behavior of different electrical components.</p> <p>CO2: Formulate and solve AC, DC circuits.</p> <p>CO3: Realize the requirement of transformers.</p> <p>CO4: Explain the properties of electromagnetic circuit.</p> <p>CO5: Understand the principles of various electrical circuits.</p> <p>CO6: Understand working principles of various analogue electrical measuring instruments.</p>
17	I/II	ME205ES	Engineering Workshop	<p>CO1: Study and practice on hand operated tools and their uses.</p> <p>CO2: Design and model the prototypes by using carpentry and tin Smithy tools.</p> <p>CO3: Join the metals by using welding and fitting trade</p> <p>CO4: Produce casting using foundry.</p> <p>CO5: Perform various basic house wiring functions.</p> <p>CO6: Bend and design the model using blacksmith trade.</p>

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