REGULATION: R15

COURSE TITLE	COURSE CODE	COURSE ID	COURSE OUTCOMES
	CODE	C111.1	Describe the communication and
			writing skills in general communication.
		C111.2	Develop the writing and life skills in
			structural manner of real time scenarios
		C111.3	Apply the knowledge of writing and
FUNCTIONAL ENGLISH	15A52101		speaking skills to enhance the career opportunities
		C111.4	Illustrate the concepts of writing and
			speaking skills to develop the skills
		C111.5	in job opportunities Analyze the concepts of various real
		0111.0	time scenarios to represent in an
			effective model.
		C112.1	Analyze the ordinary differential
			equations to provide solutions of various engineering applications.
		C112.2	Apply the mathematical knowledge
			of higher order differential
			equations to solve various
		C112.3	engineering problems. Describe the knowledge of Mean
MATHEMATICS-1	15 / 5/101	5-2-10	Value theorems, functions of
MATHEMATICS-1	15A54101		several variables and Radius of
			Curvature for engineering
		C112.4	applications. Evaluate the Multiple integrals to
		0112 .1	determine areas and volumes of
			engineering applications.
		C112.5	Apply the techniques of vector
			calculus to solve various engineering problems.
		C113.1	Understand the computer basics and
COMPUTER	15A05101		the requirement of the computer
PROGRAMMING		0112.2	operation
		C113.2	Understand about the loop control

			statements and arrays
		C113.3	Analyze the pointer variables and
			their functions
		C113.4	Application of the structures and
			unions
		C113.5	Understanding about file processing
		C110.0	systems
		C114.1	Understand the different optical
		C111.1	phenomenon such as interference &
			diffraction and principle of lasers &
			optical fibers
	_	C114.2	Explain the structure of crystals and
		C114.2	applications of ultrasonic sound
			waves
		C114.3	
		C114.3	Understand the knowledge of basic quantum mechanics and importance
ENGINEERING PHYSICS	15A56101		
			of free electrons in determining the
	_	C1111	properties of metals
		C114.4	Describe the basic concepts of
			semiconductors and magnetic
		C111	materials
		C114.5	Discuss the fundamental concepts of
			superconductivity and
			nanomaterials along with their
			applications
		C115.1	Understand the BIS conventions of
			drawing, Curves used in
			Engineering Practice like Conic
	_		sections & cycloidal curves
		C115.2	Understand the variable parameters
			of different scales & concepts of
			orthographic projections
ENGINEERING	15A03101	C115.3	Apply the Projections of straight
DRAWING	10/100101		lines, Projections of planes in
			various positions to reference planes
		C115.4	Apply the Projections of solids in
			various positions to reference planes
			& concepts of development surfaces
	[C115.5	Analyze the concepts of Isometric to
			Orthographic & Orthographic to
			Isometric projections
ENGLISH LANGUAGE		C116.1	Execute apply knowledge of human
COMMUNICATION			communication and language
SKILLS LAB	15A52102		process
	 	C116.2	Implement interpersonal,
			intrapersonal communication and
			technology from multiple
			111111111111111111111111111111111111111

			perspectives
		C116.3	Demonstrate to key theoretical approaches used in the interdisciplinary field of
		C116.4	Interpret theoretical framework, construct and concepts for study of communication
		C116.5	Differentiate to understand the strengths and weaknesses of their approaches.
		C117.1	Identify the important of optical phenomenon like Interference and diffraction
ENGINEERING PHYSICS LAB	15A56102	C117.2	Apply the practical application knowledge of optical fiber, semiconductor, dielectric and magnetic materials, crystal structure and lasers by the study of their relative parameters
		C117.3	Apply the significant importance of nanomaterials in various engineering fields
		C118.1	Explain Software Development Process and features of Programming Languages
		C118.2	Classify Data types, Type systems and type structures of representative programming languages.
COMPUTER PROGRAMMING LAB		C118.3	Apply problem solving techniques to find solutions to problems
		C118.4	Apply C language features effectively and implement solutions using C language
		C118.5	Design & develop program by selecting control statements
ENGLISH FOR PROFESSIONAL COMMUNICATION	15A52201	C121.1	Demonstratelistening, reading and writing skills of communication in general and obtain general awareness in science

		C121.2	Davidan the arel communication
		C121.2	Develop the oral communication skills in real life scenarios.
		C121.3	Illustrate the life and presentational skills for competitive opportunities.
		C121.4	Apply the life skills to deliver presentation effectively in placements.
		C121.5	Develop employability skills to enhance career opportunities.
		C122.1	Analyze the techniques of Laplace transforms and determine the soluction of ODE in engineering problems.
	15A54201	C122.2	Apply the mathematical knowledge of fourier series to solve various engineering problems.
MATHEMATICS II		C122.3	Illustrate the concepts of fourier transforms to solve various engineering problems.
		C122.4	Apply the partial differential equations generate mathematical models for engineering applications.
		C122.5	Apply the techniques of Z-transforms to solve difference equations in engineering applications.
	DATA STRUCTURES	C123.1	Demonstrate the concepts of linked list in linear data stuructures.
DATA STRUCTURES		C123.2	Demonstrate the concepts of stacks and queues for organizing data.
		C123.3	Interpret different ways of handling trees and graphs as non-linear data structures.
		C123.4	Analyze different sorting techniques for organizing data.
		C123.5	Analyze different searching

			techniques for organizing data.
		C125.1	Explain multidisciplinary nature of environmental studies and various renewable and nonrenewable resources.
		C125.2	Understand flow and bio-geo- chemical cycles and ecological pyramids.
ENVIRONMENTAL STUDIES	15A01101	C125.3	Understand various causes of pollution and solid waste management and related preventive measures.
		C125.4	Study the social issues of the environment to be a part of sustainable development
		C125.5	Discuss causes of population explosion, value education and welfare programmes.
DATA STRUCTURES LAB	15A05202	C126.1	Analyze the time and space efficiency for the given algorithms.
		C126.2	Apply operations like searching, insertion, deletion, and traversing mechanism etc. on various data structures.
		C126.3	Identify appropriate concept in data structures to solve the specified problem.
		C126.4	Apply the practical knowledge of data structures in real time applications.
		C126.1	Analyze the time and space efficiency for the given algorithms.
ENCINEEDING	15A51102	C127.1	Analyze the need, design and perform a set of experiments.
CHEMISTRY LAB	ENGINEERING	C127.2	Differentiate hard and soft water, solve the related numerical problems on water purification and

			its significance in industry and daily life.
		C127.3	Understand the causes of corrosion, its consequences and methods to minimize corrosion
		C127.1	Analyze the need, design and perform a set of experiments.
		C127.2	Differentiate hard and soft water, solve the related numerical problems on water purification and its significance in industry and daily life.
ENGINEERING & IT WORKSHOP LAB		C128.1	Practice on manufacturing of components using workshop trades including fitting, carpentry, foundry, house wiring and welding.
	1 15A99701 I	C128.2	Identify and apply suitable tools for different trades of Engineering processes demonstration on plumbing, machine shop, and metal cutting
		C128.3	Understand the process of Disassemble and Assemble a Personal Computer and prepare the computer ready to use.
		C128.4	Understand the process of usage the MS Office tool for various applications
		C128.5	Apply the knowledge to share the files, usage of internet and browings system
		C211.1	Solve Engineering problems by using the concepts of Matrices.
	15A54301 _	C211.2	Solve the engineering problems by using numerical methods.
MATHEMATICS III		C211.3	Find the solutions of engineering problems by using interpolation techniques.
		C211.4	Apply the method of least squares to find the curve of the best fit for

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			the given data.
		C211 =	Solve the real time problems by
		C211.5	using numerical differentiation.
			Identify data models for solving
		C212.1	relevant problems.
			Write SQL queries for a given
		C212.2	context in relational database.
DATABASE			Apply indexed structures and trees
MANAGEMENT	15A54301	C212.3	to organize very large files.
SYSTEMS			Explain the transaction processing
		C212.4	and Concurrency control concepts
			Determine ways to recover from
			system failures and design a
			relational database for small scale
		C212.5	organization.
		C212.5	Apply mathematical concepts and
			11 5
			logical reasoning to solve problems
			in
		00.10.1	different fields of Computer science
	15 4 05202	C213.1	and information technology.
			Illustrate the basic applications of
		C213.2	set theory and relations.
			Apply elementary properties of
DISCRETE	15A05302		modular arithmetic applications in
MATHEMATICS			solving problems in Computer
		C213.3	Science.
			Apply graph theory models of data
			structures and state machines to
			solve problems of connectivity and
		C213.4	constraints.
			Apply basic counting techniques to
			solve combinatorial problems and
		C213.5	permutations.
		C210.0	Understand the fundamentals of DC
		C214.1	and AC circuits.
		C21-1,1	Determine voltage and current
			<u>o</u>
PACIC ELECTRICAL			relations of R, L, C elements by
		C214.2	using techniques various network
BASIC ELECTRICAL	15 4 00001	C214.2	theorems for DC analysis.
&ELECTRONICS	15A99301		Understand construction and
ENGINEERING		001:5	operation of various DC and AC
		C214.3	machines.
			Explain the various types of
			semiconductor devices and their
		C214.4	characteristics.
		C214.5	Design the CB, CE, CC

			configurations and characteristics of BJT and FET devices.
		C215.1	Apply number system and Boolean algebra to store the data in digital format.
	-	C215.1	Apply minimization techniques in design of digital systems.
DIGITAL LOGIC DESIGN	15A04306	C215.3	Design and analyze various combinational circuits in digital design applications.
		C215.4	Design and analyze sequential circuits in digital design applications.
		C215.5	Design a digital circuit for memory organization using programmable logic devices.
		C216.1	Understand the impact of managerial decisions taken on business.
MANAGERIAL	15A52301	C216.2	Determine the operations of business and decisions on assumptions of profit and losses by cost of a production.
ECONOMICS AND FINANCIAL ANALYSIS		C216.3	Compare the business formulation and legal actions of a country and industrial policies.
		C216.4	Illustrate the system of finance and accounting principles on following accounting ratios.
		C216.5	Interpret budget decision and capital utilization of an organization.
		C217.1	Use database tools to perform various operations for the given data.
DATABASE MANAGEMENT SYSTEMS LABORATORY		C217.2	Design database and retrieve information from database.
	15A05303	C217.3	Draw ER diagrams, map them to tables and normalize them.
		C217.1	Use database tools to perform various operations for the given data.
		C217.2	Design database and retrieve information from database.
BASIC ELECTRICAL	15A99302	C218.1	Determine voltage, current using

AND ELECTRONICS			superposition, thevenin'stherorem
LABORATORY			and Determine open circuit and
			short circuit parameters .
			Determine the efficiency of DC
			machine and single phase
		C218.2	transformer.
			Analyze the performance
			characteristics of DC shunt motor
		C218.3	using Brake test.
		<u></u>	Determine the resistance
			characteristics of PN junction diode
		C218.4	and Zener diode.
	<u> </u>	C210.4	Analyze the input and output
			characteristics of Bipolar Junction
			Transistor in CB and CE
			Configuration and Junction field
		C010 F	effect Transistor in Common Source
		C218.5	Configuration .
			Apply Basic Probability and
		C221 1	statistics phenomenons to analyze
		C221.1	and solve the real life problems.
	15A54401		Compare and analyze the datasets
			by using classical hypothesis and
		C221.2	significance test.
PROBABILITY AND			Use ANOVA methods to solve one
STATISTICS		C221.3	way and two way classifications.
			Determine the quality of a product
			by using control charts for variables
		C221.4	and attributes.
			Apply queuing models to analyze
			real world systems and predict
		C221.5	queues.
			Identify the concepts of software
			Engineering by studying process
			models required to develop a
		C222.1	software system.
	[Analyze software requirements and
			model requirements for developing
SOFTWARE	15 4 05 4 01	C222.2	the application .
ENGINEERING	15A05401		Apply software design and
,,			development techniques by learning
		C222.3	software architecture
			Analyze the User Interface design
		C222.4	techniques to design GUI
			Analyze the testing strategies and
		C222.5	techniques for quality software
COMPUTER	15A05402	C223.1	Illustrate the concepts of computer
COMITOTER	10/100402	C220.1	mustrate the concepts of computer

ORGANIZATION			organization and its relevance to
			classical and modern problems of
			computer design.
			Analyze the structure and behavior
			of various functional models of a
		C223.2	computer.
			Explore the hardware requirements
			for cache memory and virtual
		C223.3	memory.
			Use memory and I/O devices
		C223.4	effectively.
			Design algorithms to exploit
		C223.5	pipelining and multiprocessors.
			Understand the fundamental
			concepts of 8085 and architecture of
		C224.1	8086.
	Γ		Apply the concepts of instruction
			sets and addressing modes of 8086
		C224.2	in programming.
MICROPROCESSORS &	15A04407		Identify the inerrupts ,analyze the
INTERFACING			memory and I/O interfacing of
		C224.3	8086.
			Explore various types of
			programmable interfacing devices
		C224.4	with 8086.
			Analyze the architecture of 8051 and
		C224.5	interfacing devices of 8051.
			Solve problems using object
			oriented approach and implement
		C225.1	them using Java
			Develop Java application programs
			using OOP's principles and proper
		C225.2	program structuring.
OBJECT ORIENTED	15A05403		Apply the concepts of
PROGRAMMING	101100100		Inheritance, packages and
THROUGH JAVA	_	C225.3	interfaces.
			Design Java program for
			interthread communication using
			Multithread and design using
	_	C225.4	Applet.
			Develop different frames structures
		C225.5	using AWT.
TODA (1.7. 7. 1. 2. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7.			Construct finite state diagrams
FORMAL LANGUAGES	15A05404	6227.1	while solving problems of computer
AND AUTOMATA	_	C226.1	science
THEORY		6227.5	Construct finite state machines
		C226.2	based on the languages and regular

			expressions.
			Construct CFG for high level
			languages like C and remove
		C226.3	ambiguity.
			Construct FA to recognize CFL and
		C226.4	CSL.
			Solve the problems by constructing
		_	the turing machine from regular
		C226.5	expressions.
		C227.1	Develop 8086 assembly language
		C227.1	programs.
			Develop program for
		C227.2	programmable peripheral devices
MICROPROCESSORS &	15A04408	C227.2	and their Interfacing.
INTERFACING	13A04408	C227.3	Analyze 8051 assembly language
LABORATORY		C221.3	programs. Develop and simulate programs
		C227.4	using MASM & KEIL software.
		C227.4	Develop input operational codes
			into 8086 & 8051 trainer kits and
		C227.5	execute programs.
		<u> </u>	Write portable programs which
	15A05405	C228.1	work in all environments.
		C228.2	Create user friendly interfaces.
LAMA DROCD ANAMINIC			Solve the problem using object
JAVA PROGRAMMING LABORATORY			oriented approach and design
LABORATORT		C228.3	solutions which are robust.
			Write portable programs which
		C228.1	work in all environments.
		C228.2	Create user friendly interfaces.
			Summarise the Fundamental
		G220.1	engineering knowledge of science &
		C229.1	engineering domains.
		C220.2	Demonstrate the ability to navigate
COMPREHENSIVE		C229.2	training skills and online learning.
ONLINE	15A05406	C229.3	Analyze the critical problem solving
EXAMINATION-I		C229.3	ability. Summarise the Fundamental
			engineering knowledge of science &
		C229.1	engineering domains.
		C22).1	Demonstrate the ability to navigate
		C229.2	training skills and online learning.
		<u> </u>	Understand the concepts of
OPERATING SYSTEMS		C311.1	operating systems and use them
	15A05501	CJ11.1	effectively.
			,
		C311.2	Write System and application

			programs to exploit operating system functionality.
		C311.3	Examine Deadlock handling methods and Apply the concepts of Memory management techniques.
		C311.4	Use File and Disk Management Schemes for effective Storage.
		C311.5	Examine different Protection and Security principles associated with Operating Systems.
		C312.1	Identify reference models and ability to choose the transmission media depending on the requirements.
	15A05502	C312.2	Inspect the errors in transmission media and to design new protocols for computer network.
COMPUTER NETWORKS		C312.3	Apply basic routing protocols for network design and implementation.
		C312.4	Identify deficiencies in existing protocols, and formulate better protocols.
		C312.5	Configure a computer network logically.
		C313.1	Find solutions to the complex problems using object oriented approach.
OBJECT ORIENTED ANALYSIS AND DESIGN		C313.2	Analyse and Design Solutions to Problems Using Object Oreinted Approach.
		C313.3	Demonstrate the Notations of Unified Modeling Language.
		C313.4	Apply the Usecase diagram in real time Applications.
		C313.5	Design and Implement various Strucural and Behavioural diagrams in real time Applications.
PRINCIPLES OF	15A05504	C314.1	Select appropriate program

PROGRAMMING			language for problem solving.
LANGUAGES			Apply built in data types & primitives for implementing
		C314.2	software models.
		C314.3	Create new scripting language based on problem statement.
		C314.4	Differentiate between logic and rule based language.
		C314.5	Design new programming language.
		C315.1	Explain the purpose of testing and adequacy assessment using control flow and path testing techniques.
	15A05505	C315.2	Analyze various transactions to work with various functionalities.
SOFTWARE TESTING		C315.3	Analyze data and domain test strategies to work with various functionalities.
		C315.4	Illustrate various paths and path expressions to reduce the computational cost.
		C315.5	Analyze various states, transitions and graph matrices to resolve problems.
	15A05506	C316.1	Illustrate the advanced concepts of java and client server Programming.
INTRODUCTION TO BIG DATA		C316.2	Determine the functionalities of Hadoop and Hadoop working architecture.
		C316.3	Retrieval of data from clusters with map reduce functionality.
		C316.4	Apply anatomy of map reduce and write a program for map reduce functionality using java.
		C316.5	Analyze Big Data using different tools.

			Practice the notations for		
	_		representing various UML		
		C317.1	diagrams.		
			Analyze and design the solutions by		
OOAD & ST		C317.2	various applications.		
LABORATORY	15A05509		Design Manual Test cases for		
		C317.3	Software Project.		
			Analyze the realistic problem for		
		C317.4	different category of software.		
			Evaluate automation testing tools		
		C317.5 to test the code.	to test the code.		
			Implement various concepts of		
		C318.1	operating system and software		
			routines modules .		
		C210.2	Apply the design issues associated		
		C318.2	with operating systems.		
			Examine various process		
OPERATING SYSTEMS		C318 3	management concepts including		
LABORATORY	15A05510	C 310.3	diagrams. Analyze and design the solutions by constructing UML diagrams for various applications. Design Manual Test cases for Software Project. Analyze the realistic problem for different category of software. Evaluate automation testing tools to test the code. Implement various concepts of operating system and software routines modules. Apply the design issues associated with operating systems. Examine various process management concepts including scheduling, synchronization, and deadlocks. Analyze issues related to file system interface and implementation, disk management. Implement various concepts of operating system and software routines modules. Understand the basic concepts of society, family and channels of youth moments for National Building. Analyze the sociological, psychological factors influencing the youth crime, social harmony and national integration. Discuss the environmental issues		
	-				
		C318.3 scheduling, synchronization, deadlocks. Analyze issues related to file systematic interface and implementation, management. Implement various concepts	-		
			Analyze the realistic problem for different category of software. Evaluate automation testing tools to test the code. Implement various concepts of operating system and software routines modules . Apply the design issues associated with operating systems. Examine various process management concepts including scheduling, synchronization, and deadlocks. Analyze issues related to file system interface and implementation, disk management. Implement various concepts of operating system and software routines modules . Understand the basic concepts of society, family and channels of youth moments for National Building. Analyze the sociological, psychological factors influencing the youth crime, social harmony and national integration.		
		C010.1	1 1		
		C318.1	1 0 1		
			Understand the basic concents of		
			_		
		C319.1	Analyze and design the solutions by constructing UML diagrams for various applications. Design Manual Test cases for Software Project. Analyze the realistic problem for different category of software. Evaluate automation testing tools to test the code. Implement various concepts of operating system and software routines modules. Apply the design issues associated with operating systems. Examine various process management concepts including scheduling, synchronization, and deadlocks. Analyze issues related to file system interface and implementation, disk management. Implement various concepts of operating system and software routines modules. Understand the basic concepts of society, family and channels of youth moments for National Building. Analyze the sociological psychological factors influencing the youth crime, social harmony and national integration. Discuss the environmental issues		
SOCIAL VALUES AND ETHICS			Building.		
	15 A 00E01		Analyze the sociological,		
	15A99501	C210 2			
		C319.2			
		C319.3			
			and objectives of Civil and Self		

			defense.	
		C319.4	Understand the gender sensitization and initiatives of Government schemes for prevention.	
		C319.5	Describe the importance and benefits of physical activities.	
	15A05601	C321.1	Design and implement lexical Analyzer for a simple programming language.	
COMPILER DESIGN		C321.2	Design and implement syntax Analyzer using various parsing techniques and different levels of translation.	
		C321.3	Analyze semantic analyzer for a simple programming language.	
		C321.4	Compare different intermediate code generation forms.	
		C321.5	Apply the various optimization techniques.	
		C322.1	Illustrate the basic concepts of data warehouse and data Mining.	
		C322.2	Apply the preprocessing tools for data cleaning and data reduction.	
DATA WAREHOUSING & MINING	15A05602	J	performance of algorithms for	
		C322.4	C322.4 Use data mining tools classification and clustering .	
		C322.5	Compare and contrast different Mining techniques.	
DATA DESIGN PATTERNS		-	oriented principles of design	
	15A05603	C323.2	Analyze the usage of design pattern and use in the real world problems.	
		C323.3	Apply the Creational patterns for the required context.	
		C323.4	Implement the usage of structural	

			patterns for the required context.
		C323.5	Develop and design of expectation by using Behavioral pattern.
		C324.1	Apply various algorithmic notations to divide and conquer strategy to solve various computing problems.
DESIGN AND		C324.2	Estimate all feasible solutions using greedy strategies and dynamic programming to recite an algorithm.
ANALYSIS OF ALGORITHMS	15A05604	C324.3	Apply fundamental graph traversal techniques to solve various applications using backtracking.
		C324.4	Analyze Branch and Bound techniques to improve the efficiency of existing techniques.
		C324.5	Design the alogorithm NP hard & NP-Complete problems
		C325.1	Construct dynamic and interactive web sites
		C325.2	Construct reactive web pages using Java Script, HTML and CSS.
WEB AND INTERNET TECHNOLOGIES	15A05605	-	Explain what is XML and how to parse and use XML data
		C325.4	Develop web applications using Servlets, Jsp and PHP technologies.
		C325.5	Design rich client presentation using AJAX
LINUX ENVIRONMENT SYSTEM		C326.1	Describe the knowledge and use of the linux operating system for real time scenarios.
	15A05606	C326.2	Demonstrate the process of installation and usage of linux in a server for any GUI application.
		C326.3	Illustrate the usage of LINUX system utilities and tools for development of a software.

		C326.4	Develop a shell script applications in order to perform basic shell programming.
		C326.5	Interpret the usage of linux file system for core system services.
		C327.1	Create dynamic and interactive web sites
		C327.2	Create a server side java application called Servlet and JSP to catch form data sent from client, process it and store it on database.
WEB AND INTERNET TECHNOLOGIES	15A05609	C327.3	Apply predefined HTML tags and CSS
LABORATORY		C327.4	Analyze and create a PHP program to a DBMS and perform insert, update and delete operations on table data.
		C327.5	Analyze and evaluate the structure and the content of XML data using XML Schema.
		C328.1	Build Data Warehouse and Explore WEKA.
DATA WAREHOUSING	15A05610	C328.2	Apply the data preprocessing techniques and Demonstrate performing association rule mining on datasets.
& MINING Laboratory	13/403010	C328.3	Design data mining algorithms.
		C328.4	Perform classification, clustering and regression on datasets.
		C328.1	Build Data Warehouse and Explore WEKA.
AELCS LABORATORY	15A52602	C329.1	Improve the students fluency in English through a well developed vocabulary.
		C329.2	Improve the students to communicate their ideas relevantly and coherently in writing Have achieved familiarity with variety

			technical reports.
		C329.3	Apply Accomplishment of sound vocabulary and its proper use contextually.
		C329.4	Analyze the students for job skills and professional development activities.
		C329.1	Improve the students fluency in English through a well developed vocabulary.
		C3210.1	Summarise the Fundamental engineering knowledge of science & engineering domain.
		C3210.2	Demonstrate the ability to navigate training skills and online learning.
COMPREHENSIVE ONLINE EXAMINATION-II	15A05611	C3210.3	Analyze the critical problem solving ability.
EAAMINATION-II		C3210.1	Summarise the Fundamental engineering knowledge of science & engineering domain.
		C3210.2	Demonstrate the ability to navigate training skills and online learning.
		C411.1	Outline the principles on motivation, leading and controlling by using managerial functions.
MANAGEMENT SCIENCE	15 4 50 (0 1	C411.2	Demonstrate the functions of operations and the process of utilization of materials and marketing it.
	15A52601	C411.3	Interpret the human resources functionalities, development and controlling of employability opportunities.
		C411.4	Classify the business SWOT and the network analysis helps the business in sustaining the competition.
		C411.5	Differentiate the various tools of management smooth functioning.
GRID & CLOUD COMPUTING	15A05701	C412.1	Analyze development of grid and cloud computing.

			Apply the security models in the
		C412.2	grid and the cloud environment.
		C412.3	Use the grid and cloud tool kits.
		C412.4	Apply the concept of virtualization.
			Apply grid computing techniques
			to solve large scale scientific
		C412.5	problems.
	_	C413.1	Apply the new security approaches.
			Choose the appropriate security
			algorithm based on the
	_	C413.2	requirements.
DIFORMATION	15A05702		Apply security concepts of the data
INFORMATION	10/100/02	C410.0	over the network to preserve the
SECURITY	_	C413.3	confidentialities.
		C412.4	Apply different security approaches
	<u> </u>	C413.4	for secured applications.
			Implement various networking protocols for application
		C413.5	development.
		C413.5	Understand fundamentals of
		C414.1	android operating systems.
		C+1+.1	Design User Interface and develop
		C414.2	activity for Android Application.
	-	<u> </u>	Use Intent, Broadcast receivers and
MOBILE APPLICATION	15A05703		Internet services in Android
DEVELOPMENT	_	C414.3	Application.
			Design and implement Database
		C414.4	Application and Content providers.
			Use multimedia, camera and
			Location based services in Android
		C414.5	App.
			Demonstrate Software Architecture
			reference models and architecture
			business cycle for making a good
		C415.1	Software Architecture
			Choose different Software
			Architectural life cycles for
	15 4 05706	C415.2	designing a good architecture
SOFTWARE ARCHITECTURE	15A05706		Identify Quality Attributes,
			Functional attributes, and different
		C44 F 0	types of tactics for creating
		C415.3	architecture.
			Develop the document of software
		C41 F 4	architecture and views for creating
		C415.4	architecture.
		C41 F F	Develop real time projects by
		C415.5	combining ATAM and CBAM

			frameworks with quality attributes.
			Identify the concepts of
			conventional software project
			management and Software
			Economics for developing a
		C416.1	software project.
			Apply Conventional and modern
			principles of software project
			management to develop the
	_	C416.2	software products.
			Explain the software architecture,
SOFTWARE PROJECT	15A05707	C41()	life cycle phases and process for a
MANAGEMENT	<u> </u>	C416.3	building a software product.
			Interpret the techniques to evaluate progress of software project
			workflows in terms of milestones
			and check points, project
			organization responsibilities and
		C416.4	process automation
			Choose the software metrics to
			implement a software product
			through process instrumentation
			ethical principles to be followed in
		C416.5	management of software economics
			Design and Implement applications
		C417.1	on the cloud.
			Design and implement applications
	_	C417.2	on the grid.
GRID & CLOUD COMPUTING	15A05710		Create secured applications using
		04450	basic security mechanisms available
LABORATORY	_	C417.3	in Grid toolkits.
		C417.4	Create Google app engine programs
	<u> </u>	C417.4	by using cloud toolkits.
		C417.1	Design and Implement applications on the cloud.
		C417.1	Create applications for hand-held
		C418.1	devices.
MOBILE APPLICATION DEVELOPMENT LABORATORY		C110.1	Implement an application for
			creating basic GUI components,
		C418.2	Layouts and basic widgets.
	15 4 05544	<u> </u>	Analyze the capability to implement
	15A05711		the application for location tracking,
			work with databases, and creating
		C418.3	some basic widgets.
	Γ		Create an application for user
		C418.4	interaction and basic primitives.
		C418.1	Create applications for hand-held

			devices.
			Demonstrate the application of
		C421.1	various WLAN standards over time
			Identify efficient medium access
			control protocol for wireless
		C421.2	networks
			Develop dynamic routing protocols
MOBILE COMPUTING	15A05802	C421.3	for ADHOC network.
			Illustrate quality of any service in
			ADHOC network using Qos
			strategies
			Choose appropriate wireless sensor
		C404 F	network mode for real-time
		C421.5	application
		C422.1	Evaluate Cyber Security incidents to
		C422.1	apply appropriate response. Illustrate the concepts of computer
		C422.2	forensics to build an application.
	-	C422,2	Analyze the methods for data
	15A05805		recovery, evidence collection in
CYBER SECURITY		C422.3	Hand Held Devices.
			Evaluate decision making outcomes
		C422.4	of Cyber Security scenarios.
			Analyze threats and risks within
			context of the Cyber Security
		C422.5	architecture.
			Apply the fundamentals of
			mathematics, science and
			Engineering.
			Recall the fundamentals of
		C423.1	mathematics, science and
	<u> </u>	C423.1	Engineering Relate comprehensive
			understanding of techniques
			applicable to their own area of
	15A05807	C423.2	professional practice.
COMPREHENSIVE	15/10500/		Interact with others and Build
VIVA-VOCE		C423.3	confidence to face the interviews.
			Apply the fundamentals of
			mathematics, science and
			Engineering.
			Recall the fundamentals of
		0.122.1	mathematics, science and
		C423.1	Engineering
			Relate comprehensive
		C422.2	understanding of techniques
		C423.2	applicable to their own area of

			professional practice.
			Develop interest towards research
			oriented field with ability to search
			the literature and brief report
		C424.1	preparation.
			Develop the skills competencies and
			point of view needed by
			professional in the field related to
		C424.2	course.
	15A05808		Develop the discussion and critical
TECHNICAL SEMINAR			thinking about topics of recent
		C424.3	trends.
			Improve interpersonal and
			communication skills and
			awareness on industrial
		C424.4	environment.
			Develop interest towards research
			oriented field with ability to search
			the literature and brief report
		C424.1	preparation.
		_	Identify the problem by applying
		C425.1	acquired knowledge.
			Analyze and categorize executable
		_	project modules after considering
	15A05809	C425.2	risks.
PROJECT WORK	13A03609		Choose efficient tools for designing
		C425.3	project modules.
			Combine all the modules through
		.	effective team work after efficient
		C425.4	testing.
		0.45==	Elaborate the completed task and
		C425.5	compile the project report.