

## Koneru Lakshmaiah Education Foundation (Category -1, Deemed to be University estd. u/s. 3 of the UGC Act, 1956)

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Admin Off: 29-36-38, Museum Road, Governorpet, Vijayawada - 520 002. Ph: +91 - 866 -2577715, Fax: +91-866-2577717.

B.Tech

**Electronics and Computer Engineering** 

**COURSE VS POS & PSOS MAPPING** 

Y19 Admitted Batch

COURSE VS FOS	S & PSUS MAPPING		Y19 Admitted Batch														
COURSE CODE	COURSE NAME	CO NO	<b>Description of the Course Outcome</b>	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
		CO1	Understand the basic Structures , relations and permutations & combinations , probability	2													
		CO2	Model and solve the relevant physical problems mathematically as a system of linear equations .	2													
19MT1101	MATHEMATICS FOR COMPUTING	CO3	Apply the rules of Propositional logic to establish valid results of mathematical arguments, Induction and solve recurrence relations .	2													
		CO4	understand the graphs and analyze different problems associated with computer, logic design.	2													
		CO5	Describe the Aptitude & Reasoning skills	2													
		CO1	Illustrate how problems are solved using computers and programming.	2	2										2		
		CO2	Illustrate and use Control Flow Statements in C.	2	2										2		
19SC1101	PROBLEM SOLVING AND COMPUTER	CO3	Interpret & Illustrate user defined C functions and different operations on list of data.	2	2												
	PROGRAMMING	CO4	Implement Linear Data Structures and compare them.				3										
		CO5	Apply the knowledge obtained by the course to solve real world problems.	2	2		2										
		CO1	Practice design thinking by developing artistic skills			2											
		CO2	Visualize and practice innovative design by final drafting using photogrammetric and model the design using prototyping technique				3										
19ME1103	DESIGN TOOLS WORKSHOP-1	CO3	Apply the concept of AI & Data analytics & finalize the requirements to design his idea					3									

		CO4	Draft a report of his project from the initial stage & make a report which include scope, time and cost management of his project				3							
		CO1	Apply the concepts of basic programming to solve the basic problems, pattern based problems	3	3								3	
19SC1106	TECHNICAL SKILLS - 1(CODING)	CO2	Build solutions for problems on Numbers and array based	3	3								3	
	r(eddired)	CO3	Solve problems solutions for character/string based problems and pointers	3	3								3	
		CO4	Build solutions to programs on Data structures concepts.	3	3								3	
		CO1	Apply differential and integral calculus to find maxima & minima of functions and evaluate the integrals											
19MT2102	MATHEMATICS FOR ENGINEERS	CO2	Model and solve the relevant phenomena as a differential equation.	3										
	ENGINEERS	CO3	Demonstrate Fourier series and Analytic functions	2										
		CO4	Describe probability , Random Variables and Algebraic structures	2										
		CO1	Understand basic Concepts of OOP, fundamentals of java and apply the concepts of classes and objects through java			3		3						3
		CO2	Apply access control, Inheritance, Packages.			3		3						3
19SC1203	OBJECT ORIENTED	CO3	Apply Interfaces, Exception Handling, multi-threading, I/o.			3		3						3
19301205	PROGRAMMING	CO4	Apply collection framework and event driven programming.			3		3						3
		CO5	Apply object-oriented programming concepts to write programs and analyses requiremens and design to implement lab-based project with SDLC in students						4	4	4			4
		CO1	Apply measures of efficiency on algorithms and Analyse different Sorting Algorithms.	4	4								4	4
		CO2	Analyse and compare stack ADT and queue ADT implementations using linked list and applications.	4			4						4	4

19SC1202	DATA STRUCTURES	CO3	Analyse the linked implementation of Binary, Balanced Trees and different Hashing techniques.	4			4					4	4
		CO4	Analyse different representations, traversals, applications of Graphs and Heap organization.		4		4					4	4
		CO5	Develop and Evaluate common practical applications for linear and non-linear data structures.	5	5							5	5
	COMPUTER	CO1	Understanding of computer system and its modules				1					1	
19EC1202	ORGANIZATION &	CO2	Understanding the CPU Design				2					2	
	ARCHITECTURE	CO3	Applications of Input/Output Devices				3					3	
		CO4	Applications of RISC and CISC paradigm				4					4	
		CO1	Apply the concepts of basic programming to solve the basic problems, pattern based problems	3	3							3	
19SC1207	TECHNICAL SKILLS - 2(CODING)	CO2	Build solutions for problems on Numbers and array based problems, functions, recursion	3	3							3	
	2(CODING)	CO3	Solve problems solutions for character/string based problems	3	3							3	
		CO4	Build solutions to programs on Data structures concepts.	3	3							3	
		CO1	Practice the design ideology by artistic skill			2							
	DESIGN TOOLS	CO2	Visualize the design ideology by using VR technology				3						
19SC1209	WORKSHOP-2	CO3	Visualize the design ideology by incorporating VR technique					3					
		CO4	Visualize and present his design idea by applying AR technique				3						
		CO1	Understanding the basic algorithms for subsystem components				2					2	
		CO2	Understand memory and process virtualization				2					2	
19CS2106	OPERATING SYSTEMS	CO3	Design and solve synchronization problems, and multi-threading llibraries				3					3	
		CO4	Understand persistence concepts				2					2	
		CO5	Develop application programs using different platforms and languages					5					5
		CO1	Understand the software development life cycle and associated process models and reverse engineering	2	2								

	SOFTWARE	CO2	Illustrate Requirement modelling and Agile and Extreme programming		3	3						
19CS2211	ENGINEERING	CO3	Examine Agile Models such as Scrum, Kanban and SAFe methodology	4	4							
		CO4	Categorize various testing strategies, Test Driven Development and CMMI,SIX SIGMA TECHNIQUES	4	4							
		CO1	Analysis of BJT's and Various application in Amplifiers	1		1						
		CO2	Understand various types of FET's, IC Types and analyze FET as an Amplifier	2		2						
19EC2103	ANALOG ELECTRONIC	CO3	Understand the Linear & Non-linear application of Op-AMP and analyze active filters	2		2						
	CIRCUIT DESIGN	CO4	Analysis of different types of oscillators, filter and regulators.	1		1						
		CO5	Design and Testing of Analog circuits for realistic applications				3					
		CO1	Understand the architecture and programming concepts of 8086 Microprocessor	2	2							
		CO2	Apply the Programming concepts of 8051 Microcontroller	3	3							
19EC2106	EMBEDDED CONTROLLERS	CO3	Analyse the Interfacing of Peripherals to the 8051 microcontrollers through programming. Understand the basic architectures of PIC and ARM 7 microcontrollers		4	4						
		CO4	Understand the basic concepts of CORTEX STM-32 microcontroller and RTOS		2	2						
		CO5	Analyze the applications of programming with 8051 and 8086 on hardware / software. Analyze the applications of programming with Arduino		4	4						
		CO1	Capable to understand the electronic system design process, analyze the heat management system and understand the soldering techniques.	2			2					
	ELECTRONIC WORKSHOP-	CO2	Able to understand PCB fabrication process, PCB artwork and various protection methods for electronic systems.	2		2	2	2				
19EC2111	I(ELECTRONIC	CO3	Able to understand Raspberry Pi microcontroller and its applications	4		4	4	4				

	WORKSHOP)	CO4	Able to understand product making steps, the noise reduction designs in components & circuits, high frequency designs and CAD packages	2				2					
		CO5	Recognizing the software tool and PCB fabrication steps to implement an electronic system. Recognizing the software tool and Raspberry Pi microcontroller								4		
		CO1	Must acquire basic knowledge about embedded systems, hardware devices used and the general discussion about at mega Controller.	1		1							
19TS5001	SKILLING FOR ENGINEERS-	CO2	Must be able to use IDE and Free RTOS to develop firmware using embedded C	2		2							İ
19133001	1(Embedded C)	CO3	Must be able to develop small applications for reading input from the sensors and writing output to the actuators			2		2					ı
		CO4	Understand the purpose and basic functioning of RTOS and be able to implement sample applications through use of RTOS functions			5		4					
		CO1	Able to develop a prototype for a real time			6		6					
		CO2	Illustrate the Link, MAC and Network layer concepts.	2		2						2	
19EC2210	DATA NETWORKS AND PROTOCOLS	CO3	Illustrate Transport and Application layer concepts	2		2							2
		CO4	Understand and Apply Network Security Techniques.		3		3						3
		CO1	Develop applications using python for home automation	3	3			3					
	SKILLING FOR	CO2	Develop REST services for smart applications	6	6			3					6
19TS5004	ENGINEERS-4(IoT Programming)	CO3	Develop applications using python for intrusion detection		6			6					6
		CO4	Develop applications using python for smart parking	3	6			6					6
		CO 1	Illustrate the functional components of DBMS, importance of data modelling in design of a database.			2							
19CS2108	DATABASE MANAGEMENT	CO 2	Build queries using SQL and concepts of PL/SQL			3							

	SYSTEMS		Apply normalization techniques and indexing to										
		CO 3	construct and access decent database.				3						
			Identify the importance of transaction										
		CO 4	processing, concurrency control and recovery								4		
		CO 1	Develop a good database and define SQL queries for data analysis	2		2							
19CS2212	ARTIFICAL INTELLIGENCE	CO 2	Problem solving by Search, Heuristic Search, Randomized search techniques and Finding Optimal paths		2			2					
		CO 3	Analyze the appropriate methodologies for problem decompositions, planning and constraint data	3				3					
		CO 4	Understand Knowledge Representation using Predicate Logic, Representing Knowledge using Rules, Semantics Nets, Frames and Conceptual	2	2								
		CO1	Able to create Static Web pages using basic HTML & apply CSS		6			6					6
		CO2	Able to apply JavaScript features for form validations and event handling		3			3					3
19EM2201	WEB APPLICATION	CO3	Able to create databases using MYSQL and apply JDBC concepts to connect to a database.		6			6					6
	DEVELOPMENT	CO4	Able to create dynamic web pages using servlets & JSP		6			6					
		CO5	Must be able to design WEB site considering the user interface, navigation and interaction with the database using project-based LABS		6			6					6
		CO1	Understand Data science, Exploratory Data Analysis, Data Extraction, Wrangling	2		2						2	
		CO2	Demonstrate proficiency with statistical analysis of data				2	2				2	
19CS2205	DATA SCIENCE	CO3	Analyse the linear and logistic regression solutions for real world problems				4	4				4	
		CO4	Examine the inference from Time series models, integrate R and Hadoop				4	4				4	
		COS	Implement the Statistical and Data Analytical Algorithms using R								6		
		CO1	Understand the MOS device fabrication process		2	2							

		CO2	Analysis of MOS operation principles, characteristics and scaling process		3	3								
19EC2208	VLSI DESIGN	CO3	Constructing the Transistor Level Logic circuits and understand the MOS layout design rules		3	3								
		CO4	Study of MOS circuit performance and testing principles			3	3							
		CO5	Create the MOS circuit modules through project- oriented approach using e-CAD tools					4						
		CO1	Apply different types of regression models to solve prediction problems	3	3			3						
	SKILLING FOR	CO2	analyse Bayesian models for solving classification and prediction problems	3	3			3						
19TS5002	ENGINEERS- 2(Machine Learning	CO3	create neural network techniques to solve classification and prediction problems		3			3						
	Using Python)	CO4	create Support Vector Machines to solve classification problems.	3	3			3						
		CO5	Create machine learning models using python		3			3						
		CO1	To understand Constitutional development after Independence									2		
19UC0008	INDIAN	CO2	To learn the fundamental features of the Indian Constitution									2		
19000008	CONSTITUTION	CO3	To get a brief idea of the powers and functions of Union and State Governments									2		
		CO4	To understand the basics of working of Indian Judiciary and the Election Commission									2		
		CO1	Understand basic concepts related to Signal Processing System		2								2	
	SIGNAL	CO2	Ability to Analyse the Signal Processing Algorithms		3								3	
19EM3201	PROCESSING	CO3	Ability to Analyse the Filter design Methodologies		3								3	
		CO4	Ability to Analyse Signal Processing algorithms in different case studies		3								3	
		CO1	Understand the importance of Environmental education and conservation of natural resources.						1					

		CO2	Understand the importance of ecosystems and biodiversity.									1	
19UC0009	ECOLOGY AND		Apply the environmental science knowledge on solid										
	ENVIRONMENT	CO2	waste management, disaster management and EIA										
		CO3	process.					3					
			Understand the importance of Environmental										
		CO4	education and conservation of natural resources.					1					
		CO1	Able to understand the basic concepts of world wide web										
			and supported new artificial intelligence				2						2
		CO2	Ability to understand artificial intelligence and neural										_
19EM5104	WEB INTELLIGENCE	CO3	network-based web monitoring Analyze web-based BISC decision support in the web				3						3
1321013104	WED INTELLIGENCE	COS	Analyze web-based BISC decision support in the web				3						3
		CO4	Analyse social networking intelligence										
		CO1	Alle 4 - and and a d Dade and Discos Washing with				3						3
		COI	Able to understand Python and Django, Working with templates and models				_						_
		CO2	Able to get the data from data base and working with				2						2
	WEB	CO2	query sets				2						2
	PROGRAMMING	CO3	Able to use Django Forms, creating view CBV										
19EM3112	WITH PYTHON AND						3						3
	DJANGO	CO4	Able to handle session with middleware.				_						_
		CO5	Must be able to create Django project and application				3						3
		CO3	development										
							6						6
		CO1	Understand the types, benefits and limitation of										
			blockchain.				2						2
		CO2	Explore the blockchain decentralization and										
	Block Chain	G02	cryptography concepts				3						3
19EM3207	Technology and Cyber	CO3	Enumerate the Bitcoin features and its alternative	6			6						6
	security	CO4	options				U						0
			Apply the amout contracts on Ethorous	6			6						6
		CO5	Apply the smart contracts on Ethereum Platform										
			1	_			_						
		CO1		6			6						6
		COI	Analyse DApps on different frame works				2						2
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		CO2	Analyze usage of Blockchain technology in									
		CO2	various fields				2					2
	FUNDAMENTALS	CO3	Able to import and export data from/ to MongoDB									
19EM3206	OF MONGODB						2					2
	or morroops	CO4	Able to understand the replica set and concept of sharing				2					2
		CO5	in MongoDB  Must be able to build data models and data access				2					
		003	patterns using MongoDB									
							6					6
		CO1	Acquire fundamental knowledge related to developing an									
			application using the WEB services related Technologies.				2					2
		CO2	Acquire fundamental knowledge related to various									
			technologies used for implementing WEB services that				2					2
		CO3	Should be able to develop small WEB services-oriented									
18EM5105	WEB SERVICES		applications through the use of XML language				3					3
		CO4	Should be able to develop applications using third part									
			services which are launched on different servers				3					3
		CO5	Must be able to develop a large, maintainable, and									
			perform applications									
					6		6					6
		CO1	Ability to find and transmit data emanated from different									
			embedded and IoT devices				2					2
		CO2	Ability to use HADOOP and MAP reduce tools in the									
19EM3208	BIGDATA	202	process of undertaking Analytics				4					4
19EIVI3206	ANALYTICS	CO3	Ability to develop data Modelling, Structuring and Analytics using "R" Language				4					4
		Co4	Ability to conduct various kinds of analytics on the big									
			data especially using text									
		~~.					4					4
		CO1	Able to describe the architecture of ARM7 Processor (LPC2148)									
			, , , , , , , , , , , , , , , , , , ,	2								
	EMBEDDED	CO2	Able to interface various devices to ARM processor and		4							
19EM31113	SYSTEM DESIGN	CO3	program the same using Embedded C Language  Able to describe Interrupts and A/D, D/A of ARM7		_							
	WITH ARM	000	Controller		2							
	· · · · · · · · · · · · · · · · · · ·	CO4	Able to interface various devices through Communication									
			protocols									
					4						4	
		CO1	Able to Understand the Linux operating system									
				2								
		CO2	Able to understand and apply file system structures and		_							
1			Linux root file system		4	<u> </u>				<u> </u>		

19EM3102	EMBEDDED LINUX	CO3	Able to understand kernel, Boot initialisation and Thread concepts.		4							
		CO4	Able to understand and apply device drivers for various applications, interfacing and optimisation techniques		4						4	
		CO1	Able to understand and describe serial communication protocols using 8051 and LPC2148 controllers.	2								
	NETWORKING OF	CO2	Able to understand and describe I2C and USB communication protocols.		4							
19EM3211	EMBEDDED SYSTEMS	CO3	Able to understand and describe CAN communication protocol		4							
		CO4	Able to understand and describe wireless communication protocols		4						4	
		CO1	Able to understand hardware and software codesign		4						4	
	_	CO2	models  Able to understand the different methodologies for	2								
405142402	HARDWARE		hardware/software codesign		2							
19EM3103	SOFTWARE CODESIGN	CO3	Able to understand the interfacing techniques for hardware and software.		2							
		CO4	Able to understand the high-level synthesis model and analyze RTL optimization.									
		CO1	Able to understand the system architecture concepts		4						4	
		COI	·	2								
		CO2	Able to understand the requirements for processor selection strategies.		2							
19EM3203	SYSTEM ON CHIP	CO3	Able to understand the requirements for memory selection strategies for SoC development.		2							
		CO4	Able to understand the bus architectures and interconnect architectures and analyze the different case studies		4						4	
		CO1	Able to understand security trends and policies	2								
	EMBEDDED	CO2	Able to understand embedded operating system security techniques.		3							
19EM3204	SECURITY	CO3	Able to understand and describe software security developments and upgrades.		2							
		CO4	Able to understand and describe cryptography techniques.									
		CO 1	Understand functional blocks of IoT devices		3							

		CO 2	Demonstrate the Technologies involved in IoT based				2				2	
19EM3111	FUNDAMENTALS OF IOT	CO 3	Systems Apply different wireless technologies used for the									
	OF IOT	~~ .	development of IoT based Networks				3				3	
		CO 4	Analyse various IOT Real time application design Components									
			Components				4				4	
		CO 1	Understand the role of sensor and actuators in real time								·	
			aspects and Analog and Digital Actuators		2						2	
	IOT:SENSING AND	CO 2	Analyse the role of signal conditioning circuits and Impedance Matching circuits		2						4	
19EM3106	ACTIVATING	CO 3	Understand different generation of sensors for the				2				2	
	DEVICES	CO 4	development of IoT based Networks Analyse the role of different Energy sources and power				2				2	
		CO 4	management in IoT									
					4						4	
		CO 1	To Understand the Architectural Overview of IoT									
							2				2	
	IOT ADCLUTECTURE	CO 2	To Understand the IoT Reference Architecture and Real World Design Constraints				2				2	
19EM3108	IOT ARCHITECTURE AND PROTOCOLS	CO 3	To Apply the various IoT Protocols in Datalink and									
	ANDIROTOCOLS	CO 4	Network layers				3				3	
		CO 4	To Apply the various IoT Protocols in Transport and Session Layers									
							3				3	
		CO 1	To Understand the Architectural Overview of IoT									
				2							2	
	WIDELESS SENSOD	CO 2	To Understand the IoT Reference Architecture and Real World Design Constraints				2				2	
19EM3210	WIRELESS SENSOR NETWORKS	CO 3	To Apply the various IoT Protocols in Datalink and									
	NETWORKS	GO 1	Network layers		4						4	
		CO 4	To Apply the various IoT Protocols in Transport and Session Layers									
			Section Experie				2				2	
		CO 1	To understand the differences between traditional									
			deployment and cloud computing				2					2
	CLOUD COMPUTING	CO 2	Understand different cloud infrastructures and service					2				_
19EM3212	FOR IOT	CO 3	models Apply the concepts of data analytics		+	1	3					3
	POR IOT	CO 4	Analyze the statistical data analysis and methods for				,					J
			evaluation									
								4				4

		CO1	Should gain fundamental knowledge related to										
ļ			development of E-commerce sites / portals					1					
	  -	CO2	Should be able to design, develop and Host small e-										
ļ		CO2	commerce sites /portals						2				
19EM40B2	E-COMMERCE	CO3	Should be able to implement security enforcement										
ļ			mechanisms within e-commerce sites /portals				1						
ļ		CO4	Should be able to implement different payment										
ļ			mechanisms within e-commerce sites / portals										
							2						
ļ		CO1	Design algorithms using appropriate design	6	6		6					6	
ļ			techniques (brute-force, greedy, dynamic	Ů	Ů		Ů						
ļ	TECHNICAL	CO2	Implement a variety of algorithms such as										
ļ	PROFICIENCY &		sorting, graph related, combinatorial, etc., in a										
19TS5005	TRAINING- 1 (Design -		high level language.	3	3		3					6	
13133003	Analysis and	CO3	Analyze and compare the performance of										
ļ	Algorithms in Java)		algorithms using language features.		4		3					4	
	Aigorums m sava)	CO4	Apply and implement learned algorithm design										
ļ			techniques and data structures to solve real										
ļ			world problems	3	3		6					3	
		CO1	Must have full understanding of Linux Commands and										
ļ			Bourn shell programming					2					
ļ		CO2	Ability to develop Bourn shell programs interfaced with										
ļ	LINUX		LINUX utilities						2				
19EM40B1	PROGRAMMING	CO3	Ability to develop Bourn shell programs interfaced with										
ļ	PROGRAMMING		SED and AWK user interface systems and File management systems				2						
ļ		CO4	Ability to develop Bourn shell programs that implements										
ļ			inter process communication and process management										
							2						
	SKILLING FOR	CO1	under stand machine learning and neural networks					2					
19TS5003	ENGINEERS-3(Deep	CO2	apply Neural networks in various applications						2				
	Learning using Python)	CO3	apply convolutional neural networks				2						
	Learning using Python)	CO4	Apply and implement Recurrent Neural Networks				2						
ļ		CO1	Understand advanced data structures				2						2
		CO2	Apply nonlinear data structures(graphs) to										
	Technical Proficiency -		implement graph applications				3						3
19TS5006	2 (Advanced	CO3	Apply more advanced algorithms for solve									-	
19133000	DataStructures in Java)		Realtime problems				3						3
	DataStructures III Java)	CO4	Understand advanced algorithms and analysis.										
	[		Apply advanced data structures and algorithms										
ļ		CO5	to solve real time				3						3

		CO1	Apply the practical knowledge of using action										
			words in sentence construction.	3									2
19UC1101		CO2	Apply and analyse the right kind of pronunciation with regards to speech sounds and able to get different types of pronunciations.		4								2
	Basic English	CO3	Apply the concept of fundamental principle of counting to solve the problems on linear, circular permutations and also for the problems on selections. Apply the concept of probability, while doing the problems on Leap year & Non-Leap year problems, coins, dice, balls and cards.		4								4
		CO4	Analyze the given conditions and finding out all the possible arrangements in linear & circular order. Analyze the given numbers or letters to find out the hidden analogy and apply that analogy to find solutions. Finding the odd man out by observing the principle which makes the others similar.		4								4
		CO1	Apply the concepts of accurate English while writing and become equally at ease in using good vocabulary and language skills.	3									2
		CO2	Understand the importance of pronunciation and apply the same day to day conversation.				3						2
19UC1202	English Proficiency	CO3	Apply the concepts of Ratios, Percentages, Averages and Analysing the given information, a student is required to understand the given information and thereafter answer the given questions on the basis of comparative analysis of the data in the form of tabulation, bar graphs,										
			pie charts, line graphs. Analyse the given data to find whether it is sufficient or not.		4			3				3	4

		CO4	Apply the basic functionality of Clocks and Calendars to find the solutions for the problems. Analyze the given symbols to understand the hidden meaning of the given expression and finding the solutions. Analyze the given conditions and finding out all the possible arrangements in linear & circular order.	4		3					4
19UC2103	Professional Communication Skills	COI	Able to spot the common grammatical errors related to Sentence Structure, Preposition, Concord, Relative and Conditional Clauses, and Parallel Structures. The learner should be efficient to construct a context-determined text in addition to learning Technical Writing Skills. One should be enabled to use English Language efficiently in the written medium to communicate Personal as well as Professional.				2				
		CO2	Able to read, understand, and interpret a text intrinsically as well as extrinsically. The learner can browse a text quickly to come-up with a gist and personal interpretation. One is able to create a healthy workenvironment and prove to be an asset or one of the most reliable resources to the Organization. As a professional, one is mature to bridge the gulf between the existing behavior/ lifestyle and the expected corporate behaviour cum lifestyle.					2			
		CO3	Apply the concepts of Time and Work, the students will be able to solve the questions related to Men-Time-Work, problems based on wages, pipes and cisterns. Apply the concepts of Time and Distance and solve the problems related to average speed, relative speed, problems based on trains, boats, circular tracks, races and games.			2					
		CO4	Apply Venn diagrams to the given statements to find out whether the given conclusions can be deducted from the given statements. Apply the logical implications and also the negations of various connectives to find the solutions. Analyze the given data and representing the data in the form of Venn Diagrams to find relations between any given set of elements.			2					

		CO1	Apply the concept of Critical Reading and Analytical Reading and comprehend the											
			keyideas and gist of a passage.Understand the importance of the presentation skills, analyze the											
			given topic, apply various strategies and the principles of grammar in written expression.											
		CO2	Apply the concepts of grammar, various	2			3							2
			strategies and the usage of formal language in											
			written expression. By using synonyms rewrite											
			the same text in the same format and meaning. Write the gist of the given text.		2			4						2
		CO3	Apply the concepts of Numbers to solve the		_									_
			problems related to divisibility rules, problems based on Unit's digit, Remainders, Successive											
401162204	APTITUDE BUILDER- I		Division, Prime Factorization, LCM & HCF											
19UC2204			problems. Apply the concepts of Averages											
			&Alligations, students will be able to solve the problems related to Averages as well as											
			problems based on Mixtures.		4				4					4
		CO4	Apply the various concepts of cubes to find out											
			how to cut a cube to get the maximum number											
			of smaller identical pieces, how to minimize the											
			number of cuts required to cut a cube into the given number of smaller identical pieces, how to											
			count the number of smaller cubes which satisfy											
			the given painting scheme. Apply the principles											
			of binary logic to solve problems involving truth-											
			tellers, liars and alternators. Analyze the given											
			data to form an ordered arrangement from an unorganized raw data.											
					4					4			4	4
		CO1	Analyse the concepts of critical and analytical											
			reading skills. Apply the strategies and techniques learnt in handling interviews in											
			different contexts.			2				2				2
		CO2	Apply the concepts of Ratio & Proportion,						3				3	
		CO3	Percentages, Profit &Loss, Simple & Compound									4	4	

19UC3105	APTITUDE BUILDER-	CO4	Analyze the given series of numbers to predict								
13003103	II		the next number in the series. Analyze the given								
			set of numbers or letters to find the analogy.								
			Analyze the given data to find the code which is								
			used to encode a given word and use the same								
			code in the process of decoding. Apply the given								
			set of conditions to select a team from a group of								
			members.			4	2				4
		CO1	Analyze basic concepts of critical and analytical								
			reasoning skills apply strategies to analyse issues,								
			arguments and some aspects of corporate communication.				2				
		CO2	Creativity in writing of any given context like sending								
	CAMPLIC TO		Emails, Reports, Proposals etc. Make the student to face					2			
19UC3206	CAMPUS TO	900	HR interviews.					2			
	CORPORATE	CO3	Apply the concepts of Arithmetic, the students enhance								
			their problem-solving skills which helps them to succeed in campus drives, grooming the young learners into the								
			corporate world.		2						
		CO4	Analyse the basic concepts of Critical and Analytical								
			Reasoning in meeting the challenges of the professional		_						
			world.		2						