Department of Information Technology

III B. Tech I Semester

SUBJECT: FORMAL LANGUAGES AND AUTOMATA THEORY (C301)

After going through this course, the students will be able to

S. No.	COURSE OUTCOMES	BT Level
C301.1	Understand basic concepts of formal languages, grammars, and automata	2-Understand
C301.2	Design finite automata and regular expressions for pattern recognition	6-Create
C301.3	Construct context-free grammars and pushdown automata for language processing	6-Create
C301.4	Analyze Turing machines and decidability issues in computation	4-Analyze
C301.5	Apply theoretical foundations to solve problems in compiler design and software engineering	3-Apply

CO-PO MAPPING

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C301.1	3	3	2										3		
C301.2	3	3	3										3		
C301.3	3	2	3										3		
C301.4	3	3	2										2		
C301.5	2	3	3										3		
Average	**2.8**	**2.8**	**2.6**										**2.8**		

Department of Information Technology

III B. Tech I Semester

SUBJECT: SOFTWARE ENGINEERING(C302)

After going through this course, the students will be able to

S. No.	COURSE OUTCOMES	BT Level
C302.1	Understand software engineering principles, process models, and lifecycle phases.	2-Understand
C302.2	Apply requirements engineering techniques to gather, analyze, and document software specifications.	3-Apply
C302.3	Design software architectures and models using UML and other design tools.	6-Create
C302.4	Evaluate software testing strategies, quality assurance techniques, and maintenance practices.	5-Evaluate
C302.5	Demonstrate teamwork, documentation, and ethical responsibility in software project development.	3-Apply

CO-PO MAPPING

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C302.1	3	2	2	2							2	2	3	2	
C302.2	3	3	3	3	2						3	3	3	2	
C302.3	3	2	2	3	2						2	2	3	3	
C302.4	2	2	2	3	2						3	3	2	3	
C302.5				2							2	2	2		
Average	**2.75**	**2.25**	**2.25**	**2.6**	**2**						**2.4**	**2.4**	**2.6**	**2.5**	

Department of Information Technology

III B. Tech I Semester

SUBJECT: Data Communication & Computer Networks (C303)

After going through this course, the students will be able to

S. No.	COURSE OUTCOMES	BT Level
C303.1	Understand the basic concepts of computer networks and reference models	2-Understand
C303.2	Analyze data link layer protocols and error detection techniques	4-Analyze
C303.3	Evaluate medium access control and LAN technologies	5-Evaluate
C303.4	Understand network layer protocols and routing algorithms	2-Understand
C303.5	Explore transport and application layer protocols and services	2-Understand

CO-PO MAPPING

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C303.1	3	3	2	2	2				2			3	2	3	
C303.2	3	3	2	2	3				2			2	1	3	
C303.3	2	2	3	3	3				3			3	3	3	
C303.4	3	3	3	3	3				3			3	3	3	
C303.5	3	2	3	2	3				3			3	3	1	
Average	**2.8**	**2.6**	**2.6**	**2.4**	**2.8**				**2.6**			**2.8**	**2.4**	**2.6**	

Department of Information Technology

III B. Tech I Semester

SUBJECT: Web Programming (C304)

After going through this course, the students will be able to

S. No.	COURSE OUTCOMES	BT Level
C304.1	Understand the fundamentals of web technologies including HTML, CSS, and XML	2-Understand
C304.2	Develop dynamic web pages using JavaScript and client-side scripting	6-Create
C304.3	Build server-side applications using PHP and database connectivity	6-Create
C304.4	Apply session management, cookies, and file handling in web applications	3-Apply
C304.5	Demonstrate debugging, teamwork, and documentation skills in web development projects	3-Apply

CO-PO MAPPING

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C304.1	3	3	2	2	2								3	3	
C304.2	3	2	3	2	3								3	2	
C304.3	3	3	3	2	3								2	3	
C304.4	2	3	3	3	3								3	2	
C304.5	3	3	3	3	3								3	3	
Average	**2.8**	**2.8**	**2.8**	**2.4**	**2.8**								**2.8**	**2.6**	

Department of Information Technology

III B. Tech I Semester

SUBJECT: PE-I PRINCIPLES OF PROGRAMMING LANGUAGES (C305)

After going through this course, the students will be able to

S. No.	COURSE OUTCOMES	BT Level
C305.1	Illustrate concepts of programming languages, syntax, and semantics	2-Understand
C305.2	Demonstrate structured data objects and programmer-defined types	3-Apply
C305.3	Construct sequence and data control mechanisms	6-Create
C305.4	Examine storage management and binding concepts	4-Analyze
C305.5	Evaluate procedural, non-procedural, and object-oriented programming paradigms	5-Evaluate

CO-PO MAPPING

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C305.1	3	3	2	2	2	3		2	2	2		2	2	2	
C305.2	3	3	3	2	3	3		2	2	2		2	3	2	
C305.3	2	2	3	3	3	2		2	2	2		3	3	3	
C305.4	3	2	3	3	3	2		2	3	3		3	2	3	
C305.5	3	3	3	3	3	2		2	3	3		3	3	3	
Average	**2.8**	**2.6**	**2.8**	**2.6**	**2.8**	**2.4**		**2**	**2.4**	**2.4**		**2.6**	**2.6**	**2.6**	

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III B. Tech I Semester

SUBJECT: Machine Learning (C306)

After going through this course, the students will be able to

S. No.	COURSE OUTCOMES	BT Level
C306.1	Understand the foundations of machine learning and well-posed learning problems	2-Understand
C306.2	Apply decision tree learning and concept learning algorithms	3-Apply
C306.3	Implement neural networks and backpropagation techniques	3-Apply
C306.4	Analyze Bayesian learning and instance-based learning methods	4-Analyze
C306.5	Demonstrate teamwork, documentation, and communication in ML-based projects	3-Apply

CO-PO MAPPING

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C306.1	2	3	2	3	2								2	2	
C306.2	3	2	3	2	3								3	2	
C306.3	3	2	3	1	3								3	3	
C306.4	3	3	3	3	3								3	3	
C306.5	3	3	3	3	3								3	3	
Average	**2.8**	**2.6**	**2.8**	**2.4**	**2.8**								**2.8**	**2.6**	

Department of Information Technology

III B. Tech I Semester

SUBJECT: SOFTWARE ENGINEERING LAB(C307)

After going through this course, the students will be able to

S. No.	COURSE OUTCOMES	BT Level
C307.1	Understand software development life cycle models and requirement engineering process	2-Understand
C307.2	Apply design principles and UML diagrams for software modeling	3-Apply
C307.3	Use testing strategies and tools to validate software functionality	3-Apply
C307.4	Prepare project documentation including SRS, design, and test reports	6-Create
C307.5	Demonstrate teamwork, communication, and project management skills in software projects	3-Apply

CO-PO MAPPING

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C307.1	3	2	3	2					3				2	2	
C307.2	3	3	2	2	3				2				3	2	2
C307.3	2		3	3	3				2				2	2	3
C307.4	3	3	3	3	3				2				3		3
C307.5	2	3	3	3	2				3		3		2	2	3
Average	**2.6**	**2.75**	**2.8**	**2.6**	**2.75**				**2.4**		**3.0**		**2.4**	**2**	**2.75**

Department of Information Technology

III B. Tech I Semester

SUBJECT: Computer Networks & Web Programming Lab (C308)

After going through this course, the students will be able to

S. No.	COURSE OUTCOMES	BT Level
C308.1	Implement and analyze basic networking protocols using simulation tools	4-Analyze
C308.2	Configure and troubleshoot network services and socket programming	3-Apply
C308.3	Design and develop static and dynamic web pages using HTML, CSS, and JavaScript	6-Create
C308.4	Build server-side applications using PHP and database connectivity	6-Create
C308.5	Demonstrate teamwork, documentation, and debugging skills in lab-based projects	3-Apply

CO-PO MAPPING

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C308.1	3			3					2				2	3	2
C308.2	2	2		3	2				3				3	3	2
C308.3	3	2	2	2	2								2	2	2
C308.4	3	3	3	2	3				3				2	2	2
C308.5	2	3	2	3	3				3					2	3
Average	**2.6**	**2.5**	**2.333**	**2.6**	**2.5**				**2.75**				**2.25**	**2.4**	**2.2**

Department of Information Technology

III B. Tech I Semester

SUBJECT: ADVANCED COMMUNICATION SKILLS LAB(C309)

After going through this course, the students will be able to

S. No.	COURSE OUTCOMES	BT Level
C309.1	Improve fluency and accuracy in spoken English	3-Apply
C309.2	Develop effective listening and comprehension skills	2-Understand
C309.3	Enhance presentation and public speaking abilities	3-Apply
C309.4	Practice group discussions and interviews for professional settings	3-Apply
C309.5	Demonstrate interpersonal communication and teamwork in simulated environments	3-Apply

CO-PO MAPPING

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C309.1								3	3	2		3		3	1
C309.2								3	3	3		2	1	2	1
C309.3								3	3	3		3	2	3	3
C309.4								2	3	3		3	1	3	1
C309.5								2	3	3		3	3	3	3
Average								**2.6**	**3**	**2.8**		**2.8**	**1.8**	**2.8**	**1.8**

Department of Information Technology

III B. Tech I Semester

SUBJECT: INTELLECTUAL PROPERTY RIGHTS (C310)

After going through this course, the students will be able to

S. No.	COURSE OUTCOMES	BT Level
C310.1	Understand the importance of intellectual property rights in innovation and research	2-Understand
C310.2	Identify different types of intellectual property and their legal frameworks	2-Understand
C310.3	Analyze the process of patent filing, copyright registration, and trademark protection	4-Analyze
C310.4	Evaluate the role of IPR in business strategy, entrepreneurship, and technology transfer	5-Evaluate
C310.5	Demonstrate ethical awareness and responsibility in handling intellectual property	3-Apply

CO-PO MAPPING

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C310.1						3	3	3				2			
C310-.2						3	3	3				2			
C310.3						3	3	3				2			
C310.4						3	3	3				2			
C310.5									3	3					
Average						**3**	**3**	**3**	**3**	**3**		**2**			