



## Department of Information Technology

### II B. Tech II Semester

#### SUBJECT: DISCRETE MATHEMATICS (C211)

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

S. No.	COURSE OUTCOMES	BT Level
C211.1	Understand the foundations of mathematical logic and set theory	2-Understand
C211.2	Apply relations and functions to model computational problems	3-Apply
C211.3	Use combinatorics and recurrence relations for algorithm analysis	4-Analyze
C211.4	Analyze graphs and trees for data organization and network modeling	4-Analyze
C211.5	Apply algebraic structures in designing and understanding computational systems	3-Apply

#### CO-PO MAPPING

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C211.1	3	3	2	2				2	-			2	2		3
C211.2	3	3	3	2				2	-			3	3		3
C211.3	3	3	3	3				2	3			2	3		2
C211.4	3	3	3	3				2	2			3	3		2
C211.5	3	3	3	3				2	2			2	3		2
<b>Average</b>	<b>3</b>	<b>3</b>	<b>2.8</b>	<b>2.6</b>				<b>2</b>	<b>2.3</b>			<b>2.4</b>	<b>2.8</b>		<b>2.4</b>



## Department of Information Technology

### II B. Tech II Semester

#### SUBJECT: BUSINESS ECONOMICS AND FINANCIAL ANALYSIS (C212)

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

S. No.	COURSE OUTCOMES	BT Level
C212.1	The students will understand the various Forms of Business and the impact of economic variables on the Business.	2-Understand
C212.2	Understand the elasticity of the demand of the product, different types, and measurement of elasticity of demand and factors influencing on elasticity of demand and supply	2-Understand
C212.3	Recognize the Production function, features of Iso-Quants and Iso-Costs, Market Structure, Pricing aspects are learnt.	2-Understand
C212.4	The Students can study the firm's financial position by analyzing the Financial Statements of a Company.	4-Analyze
C212.5	Evaluate different types of financial ratios knowing liquidity, solvency and profitability position of business.	5-Evaluate

#### CO-PO MAPPING

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C212.1	1					2		2	2			2			2
C212.2	1					2		2	2			2			2
C212.3	2					1		1	2			2			2
C212.4	2					1		1	2			2			2
C212.5	2					1		1	2			2			2
<b>Average</b>	<b>1.5</b>					<b>1.5</b>		<b>1.3</b>	<b>2</b>			<b>2</b>			<b>2</b>



## Department of Information Technology

### II B. Tech II Semester

#### SUBJECT: OPERATING SYSTEMS (C213)

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

S. No.	COURSE OUTCOMES	BT Level
C213.1	Understand the structure and functions of operating systems	2-Understand
C213.2	Analyze process management and CPU scheduling algorithms	4-Analyze
C213.3	Apply synchronization techniques and deadlock handling methods	3-Apply
C213.4	Evaluate memory management strategies and virtual memory concepts	5-Evaluate
C213.5	Understand file systems, I/O systems, and protection mechanisms	2-Understand

#### CO-PO MAPPING

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C213.1	2	2	2	1	1			3	2	3		1	2	2	1
C213.2	3	3	3	2	2			2	3	2		2	3	3	2
C213.3	3	3	3	3	2			1	2	2		2	3	2	2
C213.4	2	3	3	2	2			2	2	1		2	3	3	2
C213.5	3	3	3	3	3			2	2	2		3	3	3	3
Average	2.6	2.8	2.8	2.2	2			2	2.2	2.0		2	2.8	2.6	2



## Department of Information Technology

### II B. Tech II Semester

#### SUBJECT: DATABASE MANAGEMENT SYSTEMS (C214)

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

S. No.	COURSE OUTCOMES	BT Level
C214.1	Understand database concepts, architecture, and data models	2- Understand
C214.2	Design ER models and convert them into relational schemas	6-Create
C214.3	Apply relational algebra and SQL for data manipulation and retrieval	3-Apply
C214.4	Understand normalization techniques and apply them to optimize database design	3-Apply
C214.5	Analyze transaction management, concurrency control, and recovery techniques	4-Analyze

#### CO-PO MAPPING

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C214.1	3	2	2											2	1
C214.2	3	3	3	2	2									2	2
C214.3	2	3	3	2	2									3	2
C214.4	3	3	3	3	2									3	3
C214.5	3	3	3		3									3	3
Average	2.8	2.8	2.8	2.3	2.25									2.6	2.2



## Department of Information Technology

### II B. Tech II Semester

**SUBJECT: JAVA PROGRAMMING (C215)**

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

S. No.	COURSE OUTCOMES	BT Level
C215.1	Understand object-oriented principles and Java language fundamentals	2-Understand
C215.2	Apply inheritance, polymorphism, and exception handling in Java programs	3-Apply
C215.3	Develop GUI applications using AWT and Swing	6-Create
C215.4	Implement multithreading and file I/O operations	3-Apply
C215.5	Demonstrate teamwork, debugging, and communication skills in Java-based projects	3-Apply

### CO-PO MAPPING

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C215.1	3	3	2										2	2	
C215.2	3	3	2		2								3	2	
C215.3	3	3	3		2								3	3	
C215.4	3	3	3		2								3	3	
C215.5	3	2	3		3								3	3	
<b>Average</b>	<b>3</b>	<b>2.8</b>	<b>2.6</b>		<b>2.25</b>								<b>2.8</b>	<b>2.6</b>	



## Department of Information Technology

### II B. Tech II Semester

#### SUBJECT: OPERATING SYSTEMS LAB (C216)

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

S. No.	COURSE OUTCOMES	BT Level
C216.1	Understand basic UNIX/Linux commands and shell scripting	2-Understand
C216.2	Implement process management techniques such as scheduling and synchronization	3-Apply
C216.3	Apply memory management and file system operations using system calls	3-Apply
C216.4	Develop shell scripts for automation and system administration tasks	6-Create
C216.5	Demonstrate teamwork, debugging, and documentation skills in lab assignments	3-Apply

#### CO-PO MAPPING

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C216.1	3	2	2						2				2	2	2
C216.2	3	3	3						2				3	3	2
C216.3	3	3	3						2				3	3	3
C216.4	3	3	3						2				3	3	2
C216.5	3	3	3						2				3	3	3
Average	3	2.8	2.8						2				2.8	2.8	2.4

#### SUBJECT: DATABASE MANAGEMENT SYSTEMS LAB (C217)



## Department of Information Technology

### II B. Tech II Semester

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

S. No.	COURSE OUTCOMES	BT Level
C217.1	Design and implement relational databases using SQL	5-Evaluate
C217.2	Apply normalization techniques to optimize database design	3-Apply
C217.3	Develop queries using relational algebra and SQL for data retrieval	3-Apply
C217.4	Implement transaction management and concurrency control mechanisms	3-Apply
C217.5	Demonstrate teamwork, documentation, and debugging skills in database projects	3-Apply

### CO-PO MAPPING

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C217.1	2	2	2		1				3				2	2	2
C217.2	3	3	3		2				3				2	2	2
C217.3	3	3	3		2				2				3	3	2
C217.4	3	3	3		3				3				3	3	2
C217.5	2	3	3		3				3				3	3	2
Average	2.6	2.8	2.8		2.2				2.8				2.6	2.6	2

**SUBJECT: JAVA PROGRAMMING LAB (C218)**



## Department of Information Technology

### II B. Tech II Semester

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

S. No.	COURSE OUTCOMES	BT Level
C218.1	Apply object-oriented programming concepts using Java	3-Apply
C218.2	Implement inheritance, polymorphism, and exception handling	3-Apply
C218.3	Develop GUI applications using AWT and Swing	6-Create
C218.4	Use multithreading and file I/O for concurrent and persistent applications	3-Apply
C218.5	Demonstrate teamwork, debugging, and documentation skills in Java projects	3-Apply

#### CO-PO MAPPING

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C218.1	3	2	2	1	3				2						
C218.2	3	3	3	2	2				2				3		
C218.3	3	3	3	3	2				2				3	3	
C218.4	3	3	3	3	3				3				3	3	
C218.5	3	3	3	3	3				3				3	3	
<b>Average</b>	<b>3</b>	<b>2.8</b>	<b>2.8</b>	<b>2.4</b>	<b>2.6</b>				<b>2.4</b>				<b>3</b>	<b>3</b>	

**SUBJECT: CONSTITUTION OF INDIA(C219)**



## Department of Information Technology

### II B. Tech II Semester

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

S. No.	COURSE OUTCOMES	BT Level
C219.1	Understand the historical background and philosophy of the Indian Constitution	2-Understand
C219.2	Comprehend the fundamental rights, duties, and directive principles	2-Understand
C219.3	Analyze the structure and functions of the legislature, executive, and judiciary	4-Analyze
C219.4	Appreciate the role of constitutional provisions in promoting social justice and equality	2-Understand
C219.5	Demonstrate civic responsibility and ethical awareness in professional and personal contexts	3-Apply

### CO-PO MAPPING

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C219.1						1		3	1	2		2			3
C219.2						2		3	2	3		3			3
C219.3						2		3	2	2		3			3
C219.4						2		3	3	3		3			3
C219.5						3		3	3	3		3			3
Average						2		3	2.2	2.6		2.8			3