CO – PO – PSO MAPPING

CS8251 PROGRAMMING IN C

LIST OF COURSE OUTCOMES

CO1 Students will be able to develop simple applications in C using basic constructs

CO2 Students will be able to design and implement applications in C using Arrays and Strings

CO3 Students will be able to design and implement applications in C using Functions and Pointers

CO4 Students will be able to develop applications in C using Structures

CO5 Students will be able to design applications using sequential and random access file processing.

CO –PO-PSO MAPPING

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	3										2	3	1
CO2	3	2	3		1							2	2	1
CO3	2	3			1							2	3	1
CO4	3	3	2		1							2	2	1
CO5		3			2							1	3	1

CO – PO – PSO MAPPING

CS8261 CPROGRAMMING LABORATORY

LIST OF COURSE OUTCOMES

CO1 Students will be able to develop C programs for simple applications making use of basic constructs.

CO2 Students will be able to develop C programs for simple applications using Arrays and Strings

CO3 Students will be able to develop C programs involving Functions, Recursion, and Pointers.

CO4 Students will be able to develop C programs involving Structures

CO5 Students will be able to design applications using sequential and random access file processing.

CO –PO-PSO MAPPING

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	3	3	3			1			1	3		3	3
CO2	3	3	3	3			1			1	3		3	3
CO3	3	3	3	3			1			1	3		3	3
CO4	3	3	3	3			1			1	3		3	3
CO5	3	3	3	3			1			1	3		3	3

CO – PO – PSO MAPPING

GE8151 PROBLEM SOLVING AND PYTHON PROGRAMMING

LIST OF COURSE OUTCOMES

CO1 Students will be able to develop algorithmic solutions to simple computational problems.

CO2 Students will be able to read and write, execute simple python programs using I/O and Control Statements.

CO3 Students will be able to Structure simple Python programs for solving problems and to Decompose a Python program into functions.

CO4 Students will be able to represent compound data using Python lists, tuples, and dictionaries.

CO5 Students will be able to read and write data from/to files in Python programs.

CO –PO-PSO MAPPING

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	3											3	1
CO2	3	2	3		1								2	1
CO3		3			1								3	1
CO4	3	3			1								2	1
CO5		3		1	2								3	1

CO – PO – PSO MAPPING

GE8161 PROBLEM SOLVING AND PYTHON PROGRAMMING LABORATORY

LIST OF COURSE OUTCOMES

CO1 Students will be able to write, test and debug simple Python programs

CO2 Students will be able to implement Python programs with conditionals and loops

CO3 Students will be able to develop Python programs step-wise by defining functions and calling them

CO4 Students will be able to use Python lists, tuples, dictionary for representing compound data

CO5 Students will be able to read and write data from/to files in Python.

CO –PO-PSO MAPPING

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	3	3	3	3	1	1		2	2	3		3	3
CO2	3	3	3	3	3	1	1		2	2	3		3	3
CO3	3	3	3	3	3	1	1		2	2	3		3	3
CO4	3	3	3	3	3	1	1		2	2	3		3	3
CO5	3	3	3	3	3	1	1		2	2	3		3	3

CO – PO – PSO MAPPING

EC8395 COMMUNICATION ENGINEERING

LIST OF COURSE OUTCOMES

CO1 Students will be able to Describe the concepts of analog modulation systems.

CO2 Students will be able to Illustrate pulse communication techniques

CO3 Students will be able to Summarize the concepts of digital modulation systems..

CO4 Students will be able to Implement the source coding technique

CO5 Students will be able to Explain the basic principles in the generation of spread spectrum signal and the methods of multiple access in communication systems.

CO –PO-PSO MAPPING

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	3										1	2	2
CO2	3	3										1	3	2
CO3	3	3										1	3	2
CO4	3	3	3								2	1	3	2
CO5	3	3										1	2	1

CO – PO – PSO MAPPING

MA8351 DISCRETE MATHEMATICS

LIST OF COURSE OUTCOMES

CO1 Students will be able to Gain the knowledge of the concepts needed to test the logic of a program

CO2 Students will be able to Explaining The basics of the counting principles

CO3 Students will be able to Explaining the basic concepts of combinatory and graph theory

CO4 Students will be able to Describe the concepts and properties of algebraic structures such as groups, rings and fields

CO5 Students will be able to Explaining the concepts and significance of lattices and Boolean algebra which are widely used in computer science and engineering

CO –PO-PSO MAPPING

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	3	1	2						1		3	2	1
CO2	3	3		3						1		3	1	1
CO3	3	3	2	1						2		3	2	2
CO4	3	3	3	1						1		3	1	
CO5	3	3	2	1						1		3	2	

CO – PO – PSO MAPPING

CS8351DIGITAL PRINCIPLES AND SYSTEM DESIGN

LIST OF COURSE OUTCOMES

CO1 Students will be able to Design the digital circuits using SimplifiedBoolean Functions

CO2 Students will be able to analyze and design combinational Circuits

CO3 Students will be able To analyze and design synchronous and Asynchronous Sequential circuits.

CO4 Students will be able To understand programmable logic Devices

CO5 Students will be able To write the HDL code for Sequential And combinational circuits.

CO –PO-PSO MAPPING

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	2	3	2	2					2	2	1	2	2
CO2	2	2	2	1	2	1				2	2	2	2	2
CO3	2	2	2	1	2	1				2	2	2	2	3
CO4	3	2	3	1	2	1				1	2	2	2	3
CO5	3	2	3			1				2	1	1	2	3

CO – PO – PSO MAPPING

CS8382 DIGITAL SYSTEM LABORATORY

LIST OF COURSE OUTCOMES

CO1 Students will be able to Implement combinational circuits using basic logic gates

CO2 Students will be able to Implement Sequential circuits like registers and counters

CO3 Students will be able to Implement sequential circuits like counters

CO4 Students will be able to Implement combinational circuits using HDL gates

CO5 Students will be able to Implement combinational circuits and sequential circuits usingHDL

CO –PO-PSO MAPPING

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	3	2	2	1	1					1	1	2	3
CO2	3	3	2	2	1						1	1	2	3
CO3	3	3	2	2	1						1	1	2	3
CO4	3	3	2	2	1					1	2	1	2	3
CO5	2	3	1	2	2	1					1	1	3	3

CO – PO – PSO MAPPING

CS8391 DATA STRUCTURES

LIST OF COURSE OUTCOMES

CO1 Students will be able to Implement abstract data types for linear data structures.

CO2 Students will be able to Analyze various Stack and queue operations.

CO3 Students will be able to Execute different linear data structures methods trees to problem solutions.

CO4 Students will be able to Apply the different non-linear data structures Graphs to problem solutions.

CO5 Students will be able to Critically analyze the various sorting and hashing algorithms.

CO –PO-PSO MAPPING

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	3	3								2	2	3	3
CO2	3	3	1								2	2	3	3
CO3	3	3	1								2	2	3	3
CO4	3	3	1								2	2	3	3
CO5	3	3	1								2	2	3	3

CO – PO – PSO MAPPING

CS8381 DATA STRUCTURES LABORATORY

LIST OF COURSE OUTCOMES

CO1 Students will be able to Enumerate functions to implement linear and non-linear data structure operations, Perform practical applications of data structures

CO2 Students will be able to Design and develop appropriate linear / non-linear data structure operations for solving a given problem

CO3 Students will be able to Design new solutions for programming problems or improve existing code using learned algorithms and data structures

CO4 Students will be able to Apply the linear / non-linear data structure operations for a given problem based on the user needs

CO5 Students will be able to Use appropriate hash functions that result in a collision free scenario for data storage and retrieval

CO –PO-PSO MAPPING

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	1									1	3	3	3
CO2	3	3	3		2						3	3	3	3
CO3	3	3	3		2						3	3	3	3
CO4	3	3	3		2						3	3	3	1
CO5	3	3			2						3	3	3	1

CO – PO – PSO MAPPING

HS8381- INTERPERSONAL SKILLS/LISTENING & SPEAKING

LIST OF COURSE OUTCOMES

CO1 Students will be able to listen and respond appropriately

CO2 Students will be able to Participation in group discussions

CO3 Students will be able to Speak fluently with limited filled pauses

CO4 Students will be able to Present effectively in seminar andwebniars

CO5 Students will be able to gainconfidence in participating in formal and informal conversion

CO –PO-PSO MAPPING

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1		1	1	1	1	1	1	1	3	3		3	3	1
CO2		2	1	2	2	1	2	1	3	3		3	3	1
CO3		1	1	1	1	1	1	2	3	3		3	3	2
CO4		1	1	2	1	1	1	2	3	3		3	2	2
CO5		1	1	2	1	1	1	3	3	3	1	2	3	3

CO – PO – PSO MAPPING

CS8392 OBJECT ORIENTED PROGRAMMING

LIST OF COURSE OUTCOMES

CO1 Students will be able to Interpret Java programs using Object Oriented Programming principles

CO2 Students will be able to Explain Java programs with the concepts inheritance and interfaces

CO3 Students will be able to Relate Java applications with threads and generics classes

CO4 Students will be able to Develop Java applications with threads and generics classes

CO5 Students will be able to Develop interactive Java programs using swings, Demonstrate simple Graphical user interface

CO –PO-PSO MAPPING

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	3	3								1	3	1	3
CO2	3	1									1	3	1	3
CO3	3	1									1	3	1	3
CO4	3	3	3								1	3	1	3
CO5	3	3	3								1	3	1	3

CO – PO – PSO MAPPING

CS8383 OBJECT ORIENTED PROGRAMMING LABORATORY

LIST OF COURSE OUTCOMES

CO1 Students will be able to Develop and implement Java programs for simple applications that make use of classes and to implement Java programs with array list

CO2 Students will be able to Design applications using file processing

CO3 Students will be able to Build software development skills using java programming for real-world applications and

CO4 Students will be able to Apply the concepts of classes, packages, interfaces, exception handling

CO5 Students will be able to Develop applications using generic programming and event handling

CO –PO-PSO MAPPING

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	3	3		3						3	3	3	3
CO2	3	3	3		3						3	3	3	3
CO3	3	3	3		3						3	3	3	3
CO4	3	3	3		3						3	3	3	3
CO5	3	3	3		3						3	3	2	2

CO – PO – PSO MAPPING

HS8461 ADVANCED READING AND WRITING

LIST OF COURSE OUTCOMES

CO1 Students will be able to Read and evaluate different text genres

CO2 Students will be able to Develop critical thinking inclined with the text

CO3 Students will be able to Write different types of essays.

CO4 Students will be able to Adapt technical writing skills.

CO5 Students will be able to Enhance the qualities of advanced writing.

CO –PO-PSO MAPPING

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1		1	1	2		1	1		3	3	1	2	2	1
CO2		2	1	1	1	1	2	1	3	3	1	3	3	1
CO3		1	2	1	2	1	1		3	3		3	2	1
CO4		2	1	2	1	1	2	2	3	3	1	2	3	1
CO5		3	1	2	1	1	1	2	3	3	1	3	2	1

CO – PO – PSO MAPPING

CS8491 COMPUTER ARCHITECTURE

LIST OF COURSE OUTCOMES

CO1 Students will be able toUnderstand the basics structure of computers, operations and instructions

CO2 Students will be able toDesign arithmetic and logic unit.

CO3 Students will be able toUnderstand pipelined execution and design control unit.

CO4 Students will be able toUnderstand parallel processing architectures.

CO5 Students will be able to Understand the various memory systems and I/O communication.

CO –PO-PSO MAPPING

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3										1	1	3	1
CO2	3	3	3	3							3	1	3	2
CO3	3										1	1	3	1
CO4	3										1	1	3	1
CO5	3										1	1	3	1

CO – PO – PSO MAPPING

CS8451 DESIGN AND ANALYSIS OF ALGORITHM

LIST OF COURSE OUTCOMES

CO1 Students will be able to Design algorithms for various computing problems.

CO2 Students will be able to Compare various Brute Force and Divide and Conquer method algorithms

CO3 Students will be able to Analyze the time and space complexity of algorithms.

CO4 Students will be able to Critically analyze the different algorithm design techniques for a given problem

CO5 Students will be able to Modify existing algorithms to improve efficiency

CO –PO-PSO MAPPING

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	3	3		2						2	1	3	3
CO2	3	3	2								1	1	3	2
CO3	2	3	2								1	1	3	3
CO4	2	3	2								1	1	3	3
CO5	3	3	3		2						1	1	3	3

CO – PO – PSO MAPPING

CS8492 DATABASE MANAGEMENT SYSTEMS

LIST OF COURSE OUTCOMES

CO1 Students will be able to Discuss the fundamental concepts of relational database and SQL

CO2 Students will be able to Use ER model for Relational model mapping to perform database design effectively

CO3 Students will be able to Summarize the properties of transactions and concurrency control mechanisms

CO4 Students will be able to Outline the various storage and optimization techniques

CO5 Students will be able to Compare and contrast various indexing strategies in different database systems and to explain the different advanced database

CO –PO-PSO MAPPING

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3										1	1	3	2
CO2	3	3	3								1	2	3	2
CO3	3										1	1	3	2
CO4	3										1	1	3	2
CO5	3										1	1	3	2

CO – PO – PSO MAPPING

CS8481 DATABASE MANAGEMENT SYSTEMS LABORATORY

LIST OF COURSE OUTCOMES

CO1 Students will be able to Use typical data definitions and manipulation commands.

CO2 Students will be able to Design applications to test Nested and Join Queries

CO3 Students will be able to Implement simple applications that use Views

CO4 Students will be able to Implement applications that require a Front-end Tool

CO5 Students will be able to Critically analyze the use of Tables, Views, Functions and Procedures

CO –PO-PSO MAPPING

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	**3**	**1**	**1**									2	3	1
CO2	3	3	**3**								**1**	2	3	1
CO3	**3**	2	**3**								**1**	3	3	1
CO4	**3**	2	3								**1**	2	3	1
CO5	**3**	2	2								**1**	2	3	1

CO – PO – PSO MAPPING

CS8493 OPERATING SYSTEMS

LIST OF COURSE OUTCOMES

CO1 Students will be able to Gain knowledge about basic concepts and functions of operating system

CO2 Students will be able to Analyse various scheduling algorithms and understand deadlock prevention and avoidance algorithm

CO3 Students will be able to Compare and contrast various memory management schemes

CO4 Students will be able to Understand the functionality of file systems

CO5 Students will be able to Perform administrative tasks on linux servers and compare ios and android operating systems

CO –PO-PSO MAPPING

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	2										1	3	3
CO2	3	3	2								1	1	3	3
CO3	2	3	1									1	3	3
CO4	3	1	1								1	1	3	3
CO5	3	3	2								1	3	3	3

CO – PO – PSO MAPPING

CS8461 OPERATING SYSTEM LABORATORY

LIST OF COURSE OUTCOMES

CO1 Students will be able to Compare the performance of various CPU Scheduling Algorithms

CO2 Students will be able to Implement Deadlock avoidance and Detection Algorithms

CO3 Students will be able to Implement Semaphore, Create processes and implement IPC

CO4 Students will be able to Analyze the performance of the various Page Replacement Algorithms

CO5 Students will be able to Implement File Organization and File Allocation Strategies

CO –PO-PSO MAPPING

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	1			1						2	2	2	2
CO2	3	3	3		2						2	2	2	3
CO3	3	3	3		2						2	2	2	3
CO4	3	1	1		1						1	2	2	3
CO5	3	3	3		2						2	2	2	3

CO – PO – PSO MAPPING

MA8402 PROBABILITY AND QUEUEING THEORY

LIST OF COURSE OUTCOMES

CO1 Students will be able to Understand the fundamental knowledge of the concepts of probability and have knowledge of standard distributions which can describe real life phenomenon.

CO2 Students will be able to Understand the basic concepts of one and two dimensional random variables and apply in engineering applications.

CO3 Students will be able to Apply the concept of random processes in engineering disciplines..

CO4 Students will be able to Acquire skills in analyzingqueueing models.

CO5 Students will be able to Understand and characterize phenomenon which evolve with respect to time in a probabilistic manner

CO –PO-PSO MAPPING

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	3	3	3								3	3	1
CO2	3	3	3	3								3	3	1
CO3	3	3	3	3								3	3	2
CO4	3	3	3	3								3	3	2
CO5	3	3	3	3								3	3	2

CO – PO – PSO MAPPING

CS8494 SOFTWARE ENGINEERING

LIST OF COURSE OUTCOMES

CO1 Students will be able to Identify the key activities in managing a software project.

CO2 Students will be able to Compare different process models

CO3 Students will be able to Concepts of requirements engineering and Analysis Modeling.

CO4 Students will be able to Apply systematic procedure for software design and deployment.

CO5 Students will be able to Compare and contrast the various testing and maintenance and Manage project schedule, estimate project cost and effort required.

CO –PO-PSO MAPPING

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	2									1	1	2	3
CO2	3	1									1	1	2	3
CO3	3										1	1	2	3
CO4	3	1									1	1	2	3
CO5	3	3									1	1	2	3

CO – PO – PSO MAPPING

MA8551 ALGEBRA AND NUMBER THEORY

LIST OF COURSE OUTCOMES

CO1 Students will be able to apply the basic notions of groups, rings, fields which will then be used to solve related problems?

CO2 Students will be able to explain the fundamental concepts of advanced algebra and their role in modern mathematics and applied contexts?

CO3 Students will be able to demonstrate accurate and efficient use of advanced algebraic techniques?

CO4 Students will be able to demonstrate their mastery by solving non - trivial problems related to the concepts, and by proving simple theorems about the, statements proven by the text?

CO5 Students will be able to apply integrated approach to number theory and abstract algebra, and provide a firm basis for further reading and study in the subject?

CO –PO-PSO MAPPING

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	3	3	2	2	1					1	2	1	3
CO2	3	3	3	3	2	1					2	2	1	2
CO3	3	3	3	3	2	1					2	3	1	2
CO4	3	3	3	3	3	2					2	3	1	2
CO5	3	3	3	3	3	2					2	2	1	2

CO – PO – PSO MAPPING

CS8591 COMPUTER NETWORKS

LIST OF COURSE OUTCOMES

CO1 Students will be able to Identify various layers of network and discuss the functions of physical layer

CO2 Students will be able to Discuss how data flows from one node to another node with regard to data link layer

CO3 Students will be able to Explain the different services of network layer

CO4 Students will be able to Compare the different transport layer protocols and their applicability based on user requirements

CO5 Students will be able to Describe the working of various application layer protocols and evaluate the performance of network and analyze routing algorithms

CO –PO-PSO MAPPING

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	2										2	1	1
CO2	3	2										2	1	1
CO3	3	2										2	1	1
CO4	3	2										2	2	1
CO5	3	2										2	2	2

CO – PO – PSO MAPPING

CS8581 NETWORKS LABORATORY

LIST OF COURSE OUTCOMES

CO1 Students will be able to Understand and evaluate the basic layers and its functions in computer networks

CO2 Students will be able to Understand the basics of how data flows from one node to another.

CO3 Students will be able to Analyze and design routing algorithms

CO4 Students will be able to Design protocols for various functions in the network

CO5 Students will be able to Understand the working of various application layer protocols

CO –PO-PSO MAPPING

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	2	2	2	2						2	1	3	3
CO2	3	2	2	2	2						2	1	3	3
CO3	3	2	2	2	2					3	2	3	3	3
CO4	3	2	2	2	2					3	2	3	3	3
CO5	3	2	2	2	2						2	1	3	3

CO – PO – PSO MAPPING

OCE552-GEOGRAPHIC INFORMATION SYSTEM

LIST OF COURSE OUTCOMES

CO1 Students will be able to Have basic idea about the fundamental of GIS

CO2 Students will be able to Understand the types of data models

CO3 Students will be able to Get knowledge about data input and topology

CO4 Students will be able to Get knowledge on data quality and standards.

CO5 Students will be able to Understand data management functions and data output

CO –PO-PSO MAPPING

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	3	2			2						2	1	2
CO2	3	3	3			2					2	2	2	1
CO3	2	3	3	2			2	1				3	1	1
CO4	2	2	3			2						3	1	2
CO5	3	3	3			2						2	1	2

CO – PO – PSO MAPPING

EC8691 MICROPROCESSORS AND MICROCONTROLLERS

LIST OF COURSE OUTCOMES

CO1 Student will be able to Analyze and implement programs on 8086 microprocessor.

CO2 Student will be able to Analyze and interpret multiprocessor systems.

CO3 Student will be able to Illustrate the design aspects of I/O and memory interface circuits.

CO4 Student will be able to Demonstrate the programs on 8051 microcontrollers.

CO5 Student will be able to Develop a simple microcontroller based systems for real time applications.

CO –PO-PSO MAPPING

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	2	2	2	1	1	1	1		1	1		1	2	2
CO2	2	2	2	1	1	1				1		1	2	2
CO3	2	2	2	2	2	1				2		1	2	2
CO4	2	2	2	2	2	1				2		1	2	2
CO5	2	2	2	2	2	1				2		1	2	2

CO – PO – PSO MAPPING

EC8681 MICROPROCESSORS AND MICROCONTROLLERS LABORATORY

LIST OF COURSE OUTCOMES

CO1 Students will be able to Implement the ALP Programs for fixed point arithmetic circuits.

CO2 Students will be able to Demonstrate the interfacing circuits for different I/Os using microprocessor.

CO3 Students will be able To Implement the basic programs in 8051 microcontroller.

CO4 Students will be able To Write code for advanced digital integrated circuits.

CO5 Students will be able To Simulate and Extract the layouts

CO –PO-PSO MAPPING

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	2	3	2	3	3	2	2			3	1	3	2	2
CO2	2	3	2	3	3	2	2			3	1	3	2	2
CO3	2	2	2	2	1	1	1			3	2	2	3	3
CO4	3	3	2	2	1	1	1			2	1	3	2	2
CO5	2	3	2	3	3	2	2			3	1	3	2	2

CO – PO – PSO MAPPING

CS8592 OBJECT ORIENTED ANALYSIS AND DESIGN

LIST OF COURSE OUTCOMES

CO1 Students will be able to Express software design with UML diagrams

CO2 Students will be able to Design software applications using OO concepts

CO3 Students will be able to Identify various scenarios based on software requirements

CO4 Students will be able to Transform UML based software design into pattern based design using design patterns

CO5 Students will be able to Understand the various testing methodologies for OO software

CO –PO-PSO MAPPING

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	3	3								2	3	2	2
CO2	3	3	3								2	3	2	3
CO3	3	3	1	3							2	2	2	3
CO4	3	3	3								2	3	2	3
CO5	3	3	1	3							2	2	2	3

CO – PO – PSO MAPPING

CS8582 OBJECT ORIENTED ANALYSIS AND DESIGN LABORATORY

LIST OF COURSE OUTCOMES

CO1 Students will be able to Perform OO analysis and design for a given problem specification

CO2 Students will be able to Identify and map basic software requirements in UML mapping.

CO3 Students will be able to Improve the software quality using design patterns and to explain the rationale behind applying specific design patterns

CO4 Students will be able to Test the compliance of the software with the SRS.

CO5 Students will be able to Apply object oriented deign to develop a software

CO –PO-PSO MAPPING

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	2	2		1				2	1		3	1	3
CO2	3	2	2		2				1	1		2	3	2
CO3	3	3	3		2				1	1		3	2	2
CO4	3	3	3		1				3	3		3	1	3
CO5	3	2	2		1				3	3		3	1	3

CO – PO – PSO MAPPING

CS8501 THEORY OF COMPUTATION

LIST OF COURSE OUTCOMES

CO1 Students will be able to Construct automata, regular expression for any pattern.

CO2 Students will be able to Write Context free grammar for any construct

CO3 Students will be able to Design Turing machines for any language.

CO4 Students will be able to Propose computation solutions using Turing machines.

CO5 Students will be able to Derive whether a problem is decidable or not

CO –PO-PSO MAPPING

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	3	3									2	2	3
CO2	3	3	2									2	2	1
CO3	3	3	3	3								3	2	3
CO4	3	3	3										2	1
CO5	3	3	3	3								1	2	

CO – PO – PSO MAPPING

CS8691 ARTIFICIAL INTELLIGENCE

LIST OF COURSE OUTCOMES

CO1 Students will be able to Use Appropriate search algorithms for any AI problem

CO2 Students will be able to Represent a problem using first order and predicate logic

CO3 Students will be able to Provide the apt agent Strategy to solve a problem

CO4 Students will be able to Design software agents to solve a problem

CO5 Students will be able to Design Applications for NLP that use Artificial Intelligence

CO –PO-PSO MAPPING

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	3	1	1							1	3	2	2
CO2	3	3	1	1							1	3	2	2
CO3	3	3	1	1							1	3	2	2
CO4	3	3	3	1	3						1	3	2	3
CO5	3	3	3	1	3						1	3	2	3

CO – PO – PSO MAPPING

CS8602 COMPILER DESIGN

LIST OF COURSE OUTCOMES

CO1 Student will be able to Understand the different phases and Design a lexical analyzer for a sample language

CO2 Student will be able to Apply different parsing algorithms to develop the parsers for a given grammar.

CO3 Student will be able to Understand and Design syntax-directed translation and run-time environment using yarn.

CO4 Student will be able to Learn to implement code optimization techniques and a simple code generator.

CO5 Student will be able to Design and implement a scanner and a parser using LEX and YACC tools.

CO –PO-PSO MAPPING

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	3	3								2	2	2	3
CO2	3	3	3								1	2	2	3
CO3	3	2	3								2	2	2	3
CO4	3	3	3								1	2	2	3
CO5	3	3	3		3						1	2	2	3

CO – PO – PSO MAPPING

CS8603 DISTRIBUTED SYSTEMS

LIST OF COURSE OUTCOMES

CO1 Student will be able to Elucidate the foundations and issues of distributed systems

CO2 Student will be able to Understand the various synchronization issues and global state for distributed systems.

CO3 Student will be able to Understand the Mutual Exclusion and Deadlock detection algorithms in distributed systems

CO4 Student will be able to Describe the agreement protocols and fault tolerance mechanisms in distributed systems

CO5 Student will be able to Describe the features of peer-to-peer and distributed shared memory systems

CO –PO-PSO MAPPING

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	3										1	2	1
CO2	3	2										1	2	1
CO3	3	3										1	2	1
CO4	3	3										1	2	1
CO5	3	3										1	2	1

CO – PO – PSO MAPPING

CS8075 DATA WAREHOUSING AND DATA MINING

LIST OF COURSE OUTCOMES

CO1 Student will be able to Design a Data warehouse system and perform business analysis with OLAP tools.

CO2 Student will be able to Apply suitable pre-processing and visualization techniques for data analysis.

CO3 Student will be able to Apply frequent pattern and association rule mining techniques for data analysis.

CO4 Student will be able to Apply appropriate classification and clustering techniques for data analysis.

CO5 Student will be able to To understand and apply various classification and clustering techniques using tools.

CO –PO-PSO MAPPING

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	3	3									1	3	2
CO2	3	3	3										3	2
CO3	3	3	2									1	3	2
CO4	3	3	2									1	3	2
CO5	3	3	1		1							1	3	2

CO – PO – PSO MAPPING

CS8651 INTERNET PROGRAMMING

LIST OF COURSE OUTCOMES

CO1 Students will be able to Construct a basic website using HTML and Cascading Style sheets

CO2 Students will be able to Build Dynamic web page with Validation using java Script objects and by applying different event handling mechanisms

CO3 Students will be able to Develop Server Side programs using servlets and JSP

CO4 Students will be able to Construct simple web pages in PHP and to represent data in XML format

CO5 Students will be able to Use AJAX and web services to develop interactive web applications

CO –PO-PSO MAPPING

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	2	3								1	3	2	3
CO2	3	3	3								1	3	2	3
CO3	3	2	3								1	3	2	3
CO4	3	2	3								1	3	2	3
CO5	3	2	3								1	3	2	3

CO – PO – PSO MAPPING

CS8661 INTERNET PROGRAMMING LABORATORY

LIST OF COURSE OUTCOMES

CO1 Student will be able to Construct a basic website using HTML and Cascading Style Sheets

CO2 Student will be able to Build dynamic web page with validation using Java Script objects and by applying different event handling mechanisms.

CO3 Student will be able to Develop server side programs using Servlets and JSP.

CO4 Student will be able to Construct simple web pages in PHP and to represent data in XML format.

CO5 Student will be able to Use AJAX and web services to develop interactive web applications

CO –PO-PSO MAPPING

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	2	3								1	3	2	3
CO2	3	3	3		1						1	3	2	3
CO3	3	2	3		1						1	3	2	3
CO4	3	2	3		1						1	3	2	3
CO5	3	2	3		1						1	3	2	3

CO – PO – PSO MAPPING

CS8601 MOBILE COMPUTING

LIST OF COURSE OUTCOMES

CO1 Student will be able to Explain the basics of mobile telecommunication systems

CO2 Student will be able to Illustrate the generations of telecommunication systems in wireless networks

CO3 Student will be able to Determine the functionality of MAC, network layer and Identify a routing protocol for a given Ad hoc network

CO4 Student will be able to Explain the functionality of Transport and Application layers

CO5 Student will be able to Develop a mobile application using android/blackberry/ios/Windows SDK

CO –PO-PSO MAPPING

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	1	1											
CO2	3	2	1									1	1	
CO3	3	2	2	2								1	1	
CO4	3	3	2	2								1		
CO5	3	3	3	3	3						2	2	3	3

CO – PO – PSO MAPPING

CS8662 MOBILE APPLICATION DEVELOPMENT LABORATORY

LIST OF COURSE OUTCOMES

CO1 Students will be able to Develop mobile applications using GUI and Layouts.

CO2 Students will be able to Develop mobile applications using Event Listener.

CO3 Students will be able to Develop mobile applications using Databases

CO4 Students will be able to Develop mobile applications using RSS Feed, Internal/External Storage, SMS, Multi- threading and GPS.

CO5 Students will be able to Analyze and discover own mobile app for simple needs.

CO –PO-PSO MAPPING

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	3	3	2	3						2	2	3	3
CO2	3	3	3	2	3						2	2	3	3
CO3	3	3	3	2	3						2	2	3	3
CO4	3	3	3	2	3						2	2	3	3
CO5	3	3	3	2	3						2	2	3	3

CO – PO – PSO MAPPING

CS8611 MINI PROJECT

LIST OF COURSE OUTCOMES

CO1 Students will be able to Choose problem with technical Importance social Contribution

CO2 Students will be able to Identify and survey the relevant literature for getting exposed to related solutions

CO3 Students will be able to Analyse, design and develop adaptable and reusable solutions

CO4 Students will be able to Implement, build and test solutions based upon the user feasible requirements

CO5 Students will be able to Deploy the solutions for better manageability and provide scope for improvability

CO –PO-PSO MAPPING

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	2	1	1	1					1	1	3	1	1
CO2	3	2	1	1	1						1	3	1	1
CO3	3	3	3		1					`1	3	3	3	3
CO4	3	3	3		2						3	3	2	3
CO5	3	3	3		2					1	3	3	2	3

CO – PO – PSO MAPPING

HS8581 PROFESSIONAL COMMUNICATION

LIST OF COURSE OUTCOMES

CO1 Students will be able to Enhance employability and career skills.

CO2 Students will be able to Orient towards professional grooming.

CO3 Students will be able to Make the students employability graduates.

CO4 Students will be able to Develop confidence and help attend interviews successfully.

CO5 Students will be able to Enhance presentability skills and group discussion skills.

CO –PO-PSO MAPPING

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	2	1		1			1	1			1	3	2
CO2	3	2	1		1			1	1			1	2	2
CO3	3	2	1		1			1	1			1	2	2
CO4	3	2	1		1			1	1			2	2	2
CO5	3	2	1		1			1	1			2	2	3

CO – PO – PSO MAPPING

CS8791 CLOUD COMPUTING

LIST OF COURSE OUTCOMES

CO1 Students will be able to Articulate the main concepts, key technologies, strengths and limitations of cloud computing.

CO2 Students will be able to Learn the key and enabling technologies that help in the development of cloud.

CO3 Students will be able to Develop the ability to understand and use the architecture of compute and storage cloud, service and delivery models.

CO4 Students will be able to Explain the core issues of cloud computing such as resource management and security

CO5 Students will be able to Be able to install and use current cloud technologies. Evaluate and choose the appropriate technologies, algorithms and approaches for implementation and use of cloud.

CO –PO-PSO MAPPING

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	1										1	3	1
CO2	3	2	2								1	2	2	3
CO3	3	2	3								1	1	3	3
CO4	3	2	2								1		1	1
CO5	3	3	3									1	3	3

CO – PO – PSO MAPPING

CS8711 CLOUD COMPUTING LABORATORY

LIST OF COURSE OUTCOMES

CO1 Students will be able to Configure various virtualization tools such as Virtual Box, VMware workstation

CO2 Students will be able to Design and deploy a web application in a PaaS environment.

CO3 Students will be able to Learn how to simulate a cloud environment to implement new schedulers.

CO4 Students will be able to Install and use a generic cloud environment that can be used as a private cloud.

CO5 Students will be able to Manipulate large data sets in a parallel environment.

CO –PO-PSO MAPPING

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	3	2	3	2						1	2	3	2
CO2	3	2	3	2	2						1	2	3	3
CO3	3		1	1	3						2	2	3	2
CO4	3	2	3	3	2						1	2	3	2
CO5	3	3	2	3	3						1	2	3	2

CO – PO – PSO MAPPING

CS8792 CRYPTOGRAPHY AND NETWORK SECURITY

LIST OF COURSE OUTCOMES

CO1 Students will be able to Understand the fundamentals of networks security, security architecture, threats and vulnerabilities.

CO2 Students will be able to Apply the different cryptographic operations of symmetric cryptographic algorithms.

CO3 Students will be able to Apply the different cryptographic operations of public key cryptography.

CO4 Students will be able to Apply the various Authentication schemes to simulate different applications.

CO5 Students will be able to Understand various Security practices and System security standards

CO –PO-PSO MAPPING

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	1											1	1
CO2	3	3	3								1	1	2	2
CO3	3	3	3								1	1	2	2
CO4	3	3	3								1	1	2	2
CO5	3	1										1	1	1

CO – PO – PSO MAPPING

IT8761 SECURITY LABORATORY

LIST OF COURSE OUTCOMES

CO1 Students will be able to Develop code for classical Encryption Techniques to solve the problems.

CO2 Students will be able to Build cryptosystems by applying symmetric and public key encryption algorithms.

CO3 Students will be able to Construct code for authentication algorithms.

CO4 Students will be able to Develop a signature scheme using Digital signature standard.

CO5 Students will be able to Demonstrate the network security system using open source tools.

CO –PO-PSO MAPPING

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	3	3		2						1	2	3	3
CO2	3	3	3		2						1	2	3	3
CO3	3	3	3		3						2	2	3	3
CO4	3	3	3		2						1	2	3	3
CO5	3	3	3		3						1	2	3	1

CO – PO – PSO MAPPING

CS8079 HUMAN COMPUTER INTERACTION

LIST OF COURSE OUTCOMES

CO1 Students will be able to Design effective dialog for HCI.

CO2 Students will be able to Design effective HCI for individuals and persons with disabilities.

CO3 Students will be able to Assess the importance of user feedback.

CO4 Students will be able to Explain the HCI implications for designing multimedia/ ecommerce/ e-learning Websites.

CO5 Students will be able to Develop meaningful user interface.

CO –PO-PSO MAPPING

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	2	3								3	3	1	3
CO2	3	2	3						2		3	3	1	3
CO3	3	2							2		3	3	1	
CO4	3	2	1									3	1	3
CO5	3	2	3									3	1	3

CO – PO – PSO MAPPING

MG8591 PRINCIPLES OF MANAGEMENT

LIST OF COURSE OUTCOMES

CO1 Students will be able to Describe the influence of historical forces on the current practice of management and primary types of managers and the roles they play.

CO2 Students will be able to Summarize different types of organization, culture, environment and current trends and issues in management.

CO3 Students will be able to Explain planning process, types, policies, strategic management, tools, techniques and decision making steps and process.

CO4 Students will be able to Describe the purpose of organization, chart, structure and human resource management.

CO5 Students will be able to Summarize the behavioral skills, motivation theories, techniques and leadership skills needed for directing.

CO –PO-PSO MAPPING

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1		3							1			1	**1**	
CO2		3								1		1	**1**	
CO3		3							1			1	**1**	
CO4		3							2	1		1	**1**	
CO5		3							2	2		1	**1**	

CO – PO – PSO MAPPING

OME752 SUPPLY CHAIN MANAGEMENT

LIST OF COURSE OUTCOMES

CO1 Students will be able to Apply the basic framework of Supply Chain Management and basic concepts

CO2 Students will be able to Understand the framework and scope of supply chain management

CO3 Students will be able to Build and manage a competitive supply chain using strategies, models, techniques and information technology.

CO4 Students will be able to Plan the demand, inventory and supply and optimize supply chain network.

CO5 Students will be able to Understand the emerging trends and impact of IT on Supply chain.

CO –PO-PSO MAPPING

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	1									0	2	2	2
CO2	3	1									0	2	2	2
CO3	3	1									2	0	3	2
CO4	3	2		2							0	1	2	2
CO5	3	1		2							0	0	1	2

CO – PO – PSO MAPPING

IT8075 SOFTWARE PROJECT MANAGEMENT

LIST OF COURSE OUTCOMES

CO1 Students will be able to Understand Project Management principles while developing software. Gain extensive knowledge about the basic project management concepts, framework and the process models.

CO2 Students will be able to Obtain adequate knowledge about software process models and software effort estimation techniques.

CO3 Students will be able to Estimate the risks involved in various project activities.

CO4 Students will be able to Define the checkpoints, project reporting structure, project progress and tracking mechanisms using project management principles..

CO5 Students will be able to Learn staff selection process and the issues related to people management.

CO –PO-PSO MAPPING

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	1							3	1	3	3	1	
CO2	3	1		2							3	3	1	1
CO3	3	1		2							3	3	1	1
CO4	3	1	1	0						1	3	3	1	1
CO5	3	1	1	0					1	2	1	3	1	1

CO – PO – PSO MAPPING

CS8080 INFORMATION RETRIEVAL TECHNIQUES

LIST OF COURSE OUTCOMES

CO1 Student will be able to Interpret open source search engine framework and explore its capabilities

CO2 Student will be able to Apply appropriate method of classification or clustering.

CO3 Student will be able to Design and implement innovative features in a search engine.

CO4 Student will be able to Design and implement a recommender system.

CO5 Student will be able to Demonstrate the entire process flow of a search engine

CO –PO-PSO MAPPING

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	1	1											
CO2	3	2	2	1									3	3
CO3	3	2	2	1								1	2	3
CO4	3	2	2	1								1	2	3
CO5	3	1	1									1	1	

CO – PO – PSO MAPPING

GE8076 PROFESSIONAL ETHICS IN ENGINEERING

LIST OF COURSE OUTCOMES

CO1 Student will be able to Acquire knowledge about the principles of various moral and ethical theories.

CO2 Student will be able to apply the concepts of Professional ideals and virtues.

CO3 Student will be able to Discuss the ethical issues related to engineering and also describe the code of ethics.

CO4 Student will be able to Acquire sufficient knowledge to evaluate the consequences of safety and risk.

CO5 Student will be able to Differentiate the responsibilities and rights of Engineering professionals' and rights in the society.

CO –PO-PSO MAPPING

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1						3	3	3				1		
CO2						3	3	3				1		
CO3						3	3	3				1		
CO4						3	3	3				1		
CO5						3	3	3				1		

CO – PO – PSO MAPPING

CS8811 PROJECT WORK

LIST OF COURSE OUTCOMES

CO1 Students will be able to identify the problem by applying acquired knowledge, Plan and build the project team with assigned responsibilities

CO2 Students will be able to Analyse, design, and develop adaptable and reusable solutions of minimal complexity by using modern tool

CO3 Students will be able to Implement and test solutions to trace against the user requirements

CO4 Students will be able to Combine all the modules through effective team work after efficient testing.

CO5 Students will be able to Elaborate the completed task and compile the project report.

CO –PO-PSO MAPPING

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	3							3		2	1	2	2
CO2	3	3	2	3	2				3		2	2	2	3
CO3	3	3	3	3	3				3		2	3	2	3
CO4	3	3	2						3		2	3	2	3
CO5	3	3							3	3	2	1	2	3