B.Tech. COMPUTER SCIENCE & BUSINESS SYSTEMS

CO-PO-PSO MAPPING

GE3151 PROBLEM SOLVING AND PYTHON PROGRAMMING

LIST OF COURSE OUTCOMES

CO1: Develop algorithmic solutions to simple computational problems.
CO2: Develop and execute simple Python programs.
CO3: Write simple Python programs using conditionals and loops for solving problems.
CO4: Decompose a Python program into functions.
CO5: Represent compound data using Python lists, tuples, dictionaries etc.
CO6: Read and write data from/to files in Python programs.

CO –PO-PSO MAPPING

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
1	3	3	3	3	2	-	-	-	-	-	2	2	3	3	-
2	3	3	3	3	2	-	-	-	-	-	2	2	3	-	-
3	3	3	3	3	2	-	-	-	-	-	2	-	3	-	-
4	2	2	-	2	2	-	-	-	-	-	1	-	3	-	-
5	1	2	-	-	1	-	-	-	-	-	1	-	2	-	-
6	2	2	-	-	2	-	-	-	-	-	1	-	2	-	
Avg.	2	3	3	3	2	-	-	-	-	-	2	2	3	3	-

CO-PO-PSO MAPPING

GE3171 PROBLEM SOLVING AND PYTHON PROGRAMMING LABORATORY

LIST OF COURSE OUTCOMES

CO1: Develop algorithmic solutions to simple computational problems
CO2: Develop and execute simple Python programs.
CO3: Implement programs in Python using conditionals and loops for solving problems.
CO4: Deploy functions to decompose a Python program.
CO5: Process compound data using Python data structures.
CO6: Utilize Python packages in developing software applications.

CO –PO-PSO MAPPING

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
1	3	3	3	3	2	-	-	-	-	-	2	2	3	3	-
2	3	3	3	3	2	-	-	-	-	-	2	2	3	-	-
3	3	3	3	3	2	-	-	-	-	-	2	-	3	-	-
4	2	2	-	2	2	-	-	-	-	-	1	-	3	-	-
5	1	2	-	-	1	-	-	-	-	-	1	-	2	-	-
6	2	2	-	-	2	-	-	-	-	-	1	-	2	-	
Avg.	2	3	3	3	2	-	-	-	-	-	2	2	3	3	-

CO-PO-PSO MAPPING

MA3354 DISCRETE MATHEMATICS

LIST OF COURSE OUTCOMES

CO1: Have knowledge of the concepts needed to test the logic of a program.
CO2: Have an understanding in identifying structures on many levels.
CO3: Be aware of a class of functions which transform a finite set into another finite set which relates to input and output functions in computer science.
CO4: Be aware of the counting principles.
CO5: Be exposed to concepts and properties of algebraic structures such as groups, rings and fields.

CO –PO-PSO MAPPING

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

CO-PO-PSO MAPPING

CS3351 DIGITAL PRINCIPLES AND COMPUTER ORGANIZATION

LIST OF COURSE OUTCOMES

CO1: Design various combinational digital circuits using logic gates**.**
CO2: Design sequential circuits and analyze the design procedures.
CO3: State the fundamentals of computer systems and analyze the execution of an instruction.
CO4: Analyze different types of control design and identify hazards.
CO5: Identify the characteristics of various memory systems and I/O communication.

CO –PO-PSO MAPPING

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

CO-PO-PSO MAPPING

CW3301 FUNDAMENTALS OF ECONOMICS

LIST OF COURSE OUTCOMES

CO1: To analyze the supporting of price, income and substitution effects in the consumers and producer's surplus.

CO2: To compare the equilibrium of a firm under perfect competition, monopoly and monopolistic competition.

CO3: To study the concepts of demand for money and supply of money with appropriate model in macro-economic analysis.

CO4: To examine and evaluate the problems of voluntary and involuntary unemployment

CO –PO-PSO MAPPING

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

CO-PO-PSO MAPPING

CS3391 OBJECT ORIENTED PROGRAMMING

LIST OF COURSE OUTCOMES

CO1: Apply the concepts of classes and objects to solve simple problems**.**
CO2: Develop programs using inheritance, packages and interfaces.
CO3: Make use of exception handling mechanisms and multithreaded model to solve real world problems.
CO4: Build Java applications with I/O packages, string classes, Collections and generics concepts.
CO5: Integrate the concepts of event handling and JavaFX components and controls for developing GUI based applications.

CO –PO-PSO MAPPING

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
1	3	3	3	2	2	-	-	-	-	-	1	-	3	2	1
2	3	3	3	2	2	-	-	-	-	-	2	-	3	2	2
3	3	3	3	2	2	-	-	-	-	-	1	-	3	1	1
4	3	3	3	2	2	-	-	-	-	-	3	-	3	2	1
5	3	3	3	2	2	-	-	-	-	-	2	-	3	2	1
Avg.	3	3	3	2	2	-	-	-	-	-	2	-	3	2	1.2

CO-PO-PSO MAPPING

AD3351 DESIGN AND ANALYSIS OF ALGORITHMS

LIST OF COURSE OUTCOMES

CO1: Analyze the efficiency of recursive and non-recursive algorithms mathematically
CO2: Analyze the efficiency of brute force, divide and conquer, decrease and conquer, Transform and conquer algorithmic techniques
CO3: Implement and analyze the problems using dynamic programming and greedy algorithmic techniques.
CO4: Solve the problems using iterative improvement techniques for optimization.
CO5: Compute the limitations of algorithmic power and solve the problems using backtracking and branch and bound techniques.

CO –PO-PSO MAPPING

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

CO-PO-PSO MAPPING

AD3491 FUNDAMENTALS OF DATA SCIENCE AND ANALYTICS

LIST OF COURSE OUTCOMES

CO1: Explain the data analytics pipeline
CO2: Describe and visualize data
CO3: Perform statistical inferences from data
CO4: Analyze the variance in the data
CO5: Build models for predictive analytics

CO –PO-PSO MAPPING

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

CO-PO-PSO MAPPING

CW3311 BUSINESS COMMUNICATION LABORATORY I

LIST OF COURSE OUTCOMES

CO1: Speak fluently in English without errors and present themselves as effective communicators.

CO2: Use business vocabulary and take part comfortably in business conversations in English.

CO3: Draft letters and reports with appropriate formats and choice of words.

CO4: Perform well in team and group, resolve conflicts in workplaces and acquire leadership skills.

CO5: Understand women in all spheres and cultural behaviors of the people and approach them with positive human values.

CO –PO-PSO MAPPING

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

CO-PO-PSO MAPPING

CS3381 OBJECT ORIENTED PROGRAMMING LABORATORY

LIST OF COURSE OUTCOMES

CO1: Design and develop java programs using object-oriented programming concepts**.**
CO2: Develop simple applications using object-oriented concepts such as package, exceptions.
CO3: Implement multithreading, and generics concepts.
CO4: Create GUIs and event driven programming applications for real world problems.
CO5: Implement and deploy web applications using Java.

CO –PO-PSO MAPPING

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

CO-PO-PSO MAPPING

GE3361 PROFESSIONAL DEVELOPMENT

LIST OF COURSE OUTCOMES

CO1: Use MS Word to create quality documents, by structuring and organizing content for their day to day technical and academic requirements

CO2: Use MS EXCEL to perform data operations and analytics, record, retrieve data as per requirements and visualize data for ease of understanding

CO3: Use MS PowerPoint to create high quality academic presentations by including common tables, charts, graphs, interlinking other elements, and using media objects.

CO-PO-PSO MAPPING

MA3391 PROBABILITY AND STATISTICS

LIST OF COURSE OUTCOMES

CO1: Understand the fundamental knowledge of the concepts of probability and have knowledge of standard distributions which can describe real life phenomenon.

CO2: Understand the basic concepts of one- and two-dimensional random variables and apply in engineering applications.

CO3: Apply the concept of testing of hypothesis for small and large samples in real life problems.

CO4: Apply the basic concepts of classifications of design of experiments in the field of agriculture and statistical quality control.

CO5: Have the notion of sampling distributions and statistical techniques used in engineering and management problems

CO –PO-PSO MAPPING

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

CO-PO-PSO MAPPING

CS3492 DATABASE MANAGEMENT SYSTEMS

LIST OF COURSE OUTCOMES

CO1: Construct SQL Queries using relational algebra
CO2: Design database using ER model and normalize the database
CO3: Construct queries to handle transaction processing and maintain consistency of the database
CO4: Compare and contrast various indexing strategies and apply the knowledge to tune the performance of the database
CO5: Appraise how advanced databases differ from Relational Databases and find a suitable database for the given requirement.

CO –PO-PSO MAPPING

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

CO-PO-PSO MAPPING

AL3452 OPERATING SYSTEMS

LIST OF COURSE OUTCOMES

CO1: Analyze various scheduling algorithms and process synchronization.
CO2: Explain deadlock, prevention and avoidance algorithms.
CO3: Compare and contrast various memory management schemes.
CO4: Explain the functionality of file systems I/O systems, and Virtualization
CO5: Compare iOS and Android Operating Systems.

CO –PO-PSO MAPPING

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

CO-PO-PSO MAPPING

CW3401 INTRODUCTION TO BUSINESS SYSTEMS

LIST OF COURSE OUTCOMES

CO1: To demonstrate and strengthen business quality and motivation in students
CO2: Examine basic business skills and measuring business performance
CO3: To demonstrate business Applications using business software
CO4: Apply Enterprise application and Business application
CO5: Use Business Intelligence in e-business for marketing and sales.

CO –PO-PSO MAPPING

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

CO-PO-PSO MAPPING

AL3451 MACHINE LEARNING

LIST OF COURSE OUTCOMES

CO1: Explain the basic concepts of machine learning.
CO2: Construct supervised learning models.
CO3: Construct unsupervised learning algorithms.
CO4: Evaluate and compare different models

CO –PO-PSO MAPPING

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

CO-PO-PSO MAPPING

GE3451 ENVIRONMENTAL SCIENCES AND SUSTAINABILITY

LIST OF COURSE OUTCOMES

CO1: To recognize and understand the functions of environment, ecosystems and biodiversity and their conservation.
CO2: To identify the causes, effects of environmental pollution and natural disasters and contribute to the preventive measures in the society.
CO3: To identify and apply the understanding of renewable and non-renewable resources and contribute to the sustainable measures to preserve them for future generations.
CO4: To recognize the different goals of sustainable development and apply them for suitable technological advancement and societal development.
CO5: To demonstrate the knowledge of sustainability practices and identify green materials, energy cycles and the role of sustainable urbanization

CO –PO-PSO MAPPING

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
1	2	1	-	-	-	2	3	-	-	-	-	2	-	-	-
2	3	2	-	-	-	3	3	-	-	-	-	2	-	-	-
3	3	-	1	-	-	2	2	-	-	-	-	2	-	-	-
4	3	2	1	1	-	2	2	-	-	-	-	2	-	-	-
5	3	2	1	-	-	2	2	-	-	-	-	1	-	-	-
Avg.	2.8	1.8	1	1	-	2.2	2.4	-	-	-	-	1.8	-	-	-

CO-PO-PSO MAPPING

CS3481 DATABASE MANAGEMENT SYSTEMS LABORATORY

LIST OF COURSE OUTCOMES

CO1: Create databases with different types of key constraints.
CO2: Construct simple and complex SQL queries using DML and DCL commands.
CO3: Use advanced features such as stored procedures and triggers and incorporate in GUI based application development.
CO4: Create an XML database and validate with meta-data (XML schema).
CO5: Create and manipulate data using NOSQL database.

CO –PO-PSO MAPPING

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

CO-PO-PSO MAPPING

AD3461 MACHINE LEARNING LABORATORY

LIST OF COURSE OUTCOMES

CO1: Apply suitable algorithms for selecting the appropriate features for analysis.
CO2: Implement supervised machine learning algorithms on standard datasets and evaluate the performance.
CO3: Apply unsupervised machine learning algorithms on standard datasets and evaluate the performance.
CO4: Build the graph-based learning models for standard data sets.
CO5: Assess and compare the performance of different ML algorithms and select the suitable one based on the application

CO –PO-PSO MAPPING

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

CO-PO-PSO MAPPING

CS3691 EMBEDDED SYSTEMS AND IOT

LIST OF COURSE OUTCOMES

CO1: Explain the architecture of embedded processors.
CO2: Write embedded C programs.
CO3: Design simple embedded applications.
CO4: Compare the communication models in IOT
CO5: Design IoT applications using Arduino/Raspberry Pi /open platform.

CO –PO-PSO MAPPING

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
1	3	3	3	3	-	-	-	-	1	2	3	3	2	1	3
2	2	1	3	2	2	-	-	-	1	2	2	3	3	1	3
3	3	1	3	3	1	-	-	-	1	2	1	1	1	3	3
4	3	2	3	2	1	-	-	-	1	2	2	3	2	2	1
5	2	3	3	2	2	-	-	-	1	3	3	2	3	1	3
Avg.	2.6	2	3	2.4	1.5	-	-	-	1	2.2	2.2	2.4	2.2	1.6	2.6

CO-PO-PSO MAPPING

CCW331 BUSINESS ANALYTICS

LIST OF COURSE OUTCOMES

CO1: Explain the real-world business problems and model with analytical solutions.
CO2: Identify the business processes for extracting Business Intelligence
CO3: Apply predictive analytics for business fore-casting
CO4: Apply analytics for supply chain and logistics management
CO5: Use analytics for marketing and sales.

CO –PO-PSO MAPPING

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
1	2	2	3	1	1	-	-	-	1	2	1	1	3	2	1
2	3	3	3	2	3	-	-	-	1	2	2	2	3	1	2
3	2	2	3	3	2	-	-	-	3	1	1	3	3	1	2
4	2	1	1	2	2	-	-	-	3	3	2	1	1	3	1
5	2	3	2	3	2	-	-	-	3	3	1	3	3	1	1
Avg.	2.2	2.2	2.4	2.2	2	-	-	-	2.2	2.2	1.4	2	2.6	1.6	1.4

CO-PO-PSO MAPPING

CW3501 FUNDAMENTALS OF MANAGEMENT

LIST OF COURSE OUTCOMES

CO1: Understand the different elements of effective management
CO2: Apply the concepts of planning and decision making in organizations
CO3: Describe the concepts of organization and need for staffing process
CO4: Adopt the concept of directing through motivation and leadership
CO5: Demonstrate the use of control methods in changing business environment

CO –PO-PSO MAPPING

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
1	3	2	3	2	-	1	1	1	2	2	-	-	3	3	3
2	3	3	3	3	-	2	2	2	2	3	-	-	3	3	3
3	3	3	3	2	-	2	2	2	2	2	-	-	3	3	3
4	3	3	2	2	-	2	2	2	2	2	-	-	3	3	3
5	3	3	2	3	-	2	2	2	2	2	-	-	3	3	3
Avg.	3	3	2.2	2	-	2	2	2	2	2	-	-	3	3	3

CO-PO-PSO MAPPING

CW3551 DATA AND INFORMATION SECURITY

LIST OF COURSE OUTCOMES

CO1: Understand the basics of data and information security
CO2: Understand the legal, ethical and professional issues in information security
CO3: Understand the various authentication schemes to simulate different applications.
CO4: Understand various security practices and system security standards
CO5: Understand the Web security protocols for E-Commerce applications

CO –PO-PSO MAPPING

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
1	3	2	1	1	1	-	1	2	1	-	-	-	3	3	2
2	3	3	2	1	1	-	2	3	1	-	-	-	3	3	2
3	3	2	2	1	1	-	2	3	1	-	-	-	3	3	2
4	3	2	2	1	1	-	2	3	1	-	-	-	3	3	2
5	3	2	1	1	1	-	2	3	1	-	-	-	3	3	2
Avg.	3	2.2	1.6	1	1	-	2	3	1	-	-	-	3	3	2

CO-PO-PSO MAPPING

CCS356 OBJECT ORIENTED SOFTWARE ENGINEERING

LIST OF COURSE OUTCOMES

CO1: Compare various Software Development Lifecycle Models
CO2: Evaluate project management approaches as well as cost and schedule estimation strategies.
CO3: Perform formal analysis on specifications.
CO4: Use UML diagrams for analysis and design.
CO5: Architect and design using architectural styles and design patterns, and test the system.

CO –PO-PSO MAPPING

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