CO PO MAPPING LIST

Department : MBA

Program Name : Master of Business Administration **Year : 2022 -23**

MBA Batch 20 – Semester -1										
SEM	**Course Code**	**Course name**	**CO**	**COURSE OUTCOMES**	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6
1	MBA010101	Management Concepts & Organizational Behaviour	CO1	Define concepts in Management and Organisational Behaviour	2	3	2	3	2	2
			CO2	Explain the processes involved in Management and Organisational Behaviour	2	2	2	3	3	3
			CO3	Apply the concepts and processes of Management and Organisational Behaviour in specific situations	3	3	3	3	3	3
			CO4	Analyse causes and motives of behaviour in individuals and groups working in organisations.	3	3	3	3	3	3
	MBA010102	Business Communication	CO1	Define and elaborate the basic processes and concepts of managerial or business communication	2	2	1	1	1	1
			CO2	Describe the strategies for effective communication and the techniques to use persuasive and professional language in speech and writing	3	3	2	2	2	2
			CO3	Analyse personal communication-verbal and non-	3	3	3	2	2	2

10/01/2023
Dr. Dulari. S.S

SCMS SCHOOL OF TECHNOLOGY & MANAGEMENT ALUVA 683 106

Dr. G SASHI KUMAR
PRINCIPAL
SCMS SCHOOL OF TECHNOLOGY AND MANAGEMENT

				verbal and non-verbal, formal and informal, to identify specific areas for improvement						
			CO4	Evaluate organizational communication that effectively use presentations, reports and mass communications	3	3	3	2	3	3
	MBA010103	Managerial Economics	CO1	Define the terms used in micro economics given in the course	**2**	**2**	**1**	**2**	**2**	**2**
			CO2	Explain how the concepts from micro economics operate in business	**2**	3	1	3	2	2
			CO3	Apply the concepts from micro economics in business environment	**3**	3	**2**	**3**	**2**	**3**
			CO4	Analyse how the different aspects of demand, supply , consumer behaviour, market structure, cost and price operate in the functioning of firms	**3**	3	2	3	2	3
	MBA010104	Accounting for Management	CO1	Define all the keys terms and terminologies in financial, cost and management accounting, List down the various branches of financial statements, different types of ratios, cost budgets, accounting software and IFRS	3	3	3	3	2	3
			CO2	Describe the various techniques and tools	3	3	2	3	2	3

10/01/2024
Dr. Dulari S.

Dr. G SASHI KUMAR
PRINCIPAL
SCMS SCHOOL OF TECHNOLOGY AND MANAGEMENT

				in financial, cost and management accounting, Explain the concepts of inflation accounting, responsibility accounting						
			CO3	Evaluate and solve the sample problems in accounting	3	3	3	3	2	3
			CO4	Analyse & Interpret the financial , cost and management accounting data/statements	3	3	3	3	2	3
	MBA010105	Quantitative Methods	CO1	Explain the basic concepts, tools and techniques of statistics commonly used in business decision making processes	3	3	1	2	2	1
			CO2	Apply these statistical methods in various business scenarios.	3	3	2	2	3	2
			CO3	Analyse statistical data in order to establish relationship between dependent and independent variables pertaining to various business situations	3	3	1	2	2	1
			CO4	Conclude statistical inferences in relation to business decision making.	3	3	2	2	3	2
	MBA010106	Legal Environment of Business	CO1	List out the various legal provisions and regulations available for the smooth conduct of business	2	2	1	2	1	
			CO2	Explain the various legal provisions	2	3	1	2	1	

10/01/2024
Dr. Dalai SC.

Dr. G SASHI KUMAR
PRINCIPAL
SCMS SCHOOL OF TECHNOLOGY AND MANAGEMENT

				available.						
			CO3	Apply these provisions in solving problems in real life business situations	3	3	2	3	2	
			CO4	Analyse the importance of laws and its suitability for carrying out the business operations .	3	3	3	3	2	
	MBA010107	Environment Management	CO1	Define concepts in environment management in the light of global, economic, legal and ethical aspects of business.	3	2	3	3	3	3
			CO2	Describe the processes involved in environment management in the achievement of organizational, societal and national goals.	3	2	2	3	3	3
			CO3	Apply the concepts and processes of environment management to solve business problems.	3	3	3	3	3	2
			CO4	Analyse the impact of the natural, macro-economic, political and legal environment and its impact on Indian economy.	3	3	3	3	3	2
MBA Batch 20 – Semester -2										
2	MB010201	Financial Management	CO1	Define and relate the fundamental terms used in financial management.	2	2	1	1	1	1
			CO2	Explain the objectives,	2	2	1	1	1	1

10/01/2023
Dr. Dulai SS

Dr. G. SASHI KUMAR
PRINCIPAL
SCMS SCHOOL OF TECHNOLOGY AND MANAGEMENT

				functions, concepts, theories and principles of financial management along with their limitations and assumptions, if any, with clarity and accuracy.						
			CO3	Identify the relationship of financial management with the business environment and the role of financial Manager.	3	3	2	2	2	2
			CO4	Analyse the best Investment, Financing or Dividend proposals based on theoretical techniques/ approaches using practical cases.	3	3	3	2	2	3
MB010202	Marketing Management		CO1	Define the basic concepts, principles and terminologies in marketing	3	3	2	3	2	2
			CO2	Explain the marketing strategy, marketing program and its relevance to upkeep the social values in the organisation	3	2	2	3	3	3
			CO3	Analyse the marketing strategy at different PLC stages emphasizing STP and the buying behaviour	3	3	2	3	3	2
			CO4	4.4. Design a marketing plan for a given product to create customer value	3	3	2	2	3	3

10/01/2023
Dr. Dulasi S

Dr. G SASHI KUMAR
PRINCIPAL
SCMS SCHOOL OF TECHNOLOGY AND MANAGEMENT

	MB010203	Human Resources Management	CO1	Define concepts in Human Resource management in the light of global, economic, legal and ethical aspects of business	2	2	3	3	2	2
			CO2	Describe the processes involved in Human Resource Management in order to lead themselves and others in the achievement of organizational goals.	2	3	2	2	3	3
			CO3	Apply the concepts and processes oh HRM to solve business problems.	3	3	3	2	3	2
			CO4	Analyse problems involving people working in organisations towards achieving organisational goals.	3	3	3	3	2	2
	MB010204	Operations Management	CO1	Define all the important terms used in Operations Management.	3	3	2	3	3	2
			CO2	Describe the concepts, theories, practices and strategies used in context of Operations Management in organizations.	2	2	2	2	3	2
			CO3	Apply the concepts and methodology to design various activities on product/process development .	3	2	2	2	2	2
			CO4	Analyse the various	2	3	3	3	3	2

Dr. G SASHI KUMAR
PRINCIPAL
SCMS SCHOOL OF TECHNOLOGY AND MANAGEMENT

				operational strategies in process and product design in manufacturing and service organization						
	MB010205	Management Science	CO1	Recall the basic concepts and scope of operations research.	3	3	1	2	2	1
			CO2	Summarize various optimization models commonly used in business decision making processes.	3	3	1	2	2	2
			CO3	Solve data using various Scientific tools and models in OR	3	3	2	2	2	2
			CO4	Analyse the outcomes and propose critical business inferences in relation with decision science	3	3	2	2	2	2
	MB010206	Management Information Systems & Cyber Security	CO1	Recall different types of information systems in organizations used at different levels.	3	2	1	1	3	2
			CO2	Classify and illustrate the information systems based on functional requirements of the organization	3	3	2	1	2	2
			CO3	Apply the knowledge of information systems to aid decision making at various levels in the organization.	3	3	2	2	2	2
			CO4	Analyse the challenges in strategic investment in IT as well as security issues	3	3	2	2	3	3

10/01/2019
Dr. Dileep SS

Dr. G SASHI KUMAR
PRINCIPAL
SCMS SCHOOL OF TECHNOLOGY AND MANAGEMENT

			relating to the use of information systems.							
MB010207	Business Research methods	CO1	Define the basic terms in research like research design, research problem, sampling, data, scales and hypotheses	2	2	2	2	2	1
		CO2	Explain the research process, the types of research, the methods of research design, the scaling methods, measurement, data collection methods and the format of the research report	2	2	2	2	2	2
		CO3	a. Identify and develop a research problem b. Choose a research design and construct a structured questionnaire	3	3	3	3	3	3
		CO4	Create a research proposal, do an independent research study and submit a final research report with the analysis using SPSS/Jamovi	3	3	3	3	3	3
MB010208	Entrepreneurship Development	CO1	a. Define all the key terms related with Entrepreneur & entrepreneurship, b. List various steps in entrepreneurial process and key variables in success/ failures of entrepreneurship.	3	1	2	2	1	2
		CO2	a. Describe the process, concepts, strategies in	2	1	2	3	2	3

10/1/2025
Dr. Dularis

Dr. G. SASHI KUMAR
PRINCIPAL
SCMS SCHOOL OF TECHNOLOGY AND MANAGEMENT

				entrepreneurship and methods of project appraisal, b. Explain the characteristics, types of entrepreneurship and role of government policies & institutes for SMEs							
			CO3	Analyse the opportunities and challenges of Entrepreneurial growth in India and reasons for industrial sickness based on various case studies.	2	3	2	3	2	3
			CO4	Design a pitch deck for a start up using Ratan Tata's Pitch Deck template (Published on Dec.2019).	3	2	3	2	2	2

Dr. Dulari S S

Faculty Coordinator

Name & Signature with date

10-01-2023

Institution Seal

10/1/23.

Dr. G. Sashi Kumar

Head of the Institution

Name & Signature with date

10-01-2023

BACHELOR OF COMPUTER APPLICATIONS (BCA)

Department: Department of Computer Applications **Year: 2022 -23**

Program Name: Bachelor of Computer Applications

PROGRAMME OBJECTIVE

The Programme in Computer Application and Science is designed with the following specific objectives.

1. To attract young minds to the potentially rich & employable field of computer applications.
2. To be a foundation graduate programme which will act as a feeder course for higher studies in the area of Computer Science/Applications.
3. To develop skills in software development so as to enable the graduates to take up self-employment in the sIndian & global software market.
4. To train & equip the students to meet the requirements of the Industrial standards.

PROGRAM SPECIFIC OUTCOME

The Programme in Computer Application and Science is designed to

- PO1 Attract young minds to the potentially rich & and employable field of computer applications.
- PO2 Pursue higher studies in the area of Computer Science/Applications.
- PO3 Develop skills in software development so as to enable the graduates to take up self-employment in the Indian & global software market.
- PO4 Train & Equip the students to meet the requirement of the Industrial standards

Dr. Soumya. V. Menon
Faculty Coordinator

Dr. G SASHI KUMAR
PRINCIPAL
SCMS SCHOOL OF TECHNOLOGY AND MANAGEMENT

SEMESTER I			
Course Name	**Course Code**	**CO Number**	**CO**
Computer Fundamentals and Digital Principles	CA1CRT01	CO1	Define the fundamental concepts of computers and digital electronics.
		CO2	Describe the basic concepts of computers and electronics including operating systems and Networks
		CO3	Apply Boolean laws and theorems to simplify Boolean functions.
		CO4	Solve problems like conversion between various number systems, binary arithmetic, simplifying digital circuits, Boolean expressions, combinational and sequential circuits
		CO5	Design logic circuits with minimum cost
Methodology of Programming and C	CA1CRT02	CO1	Explain the semantics of various syntaxes of the "C" programming language.
		CO2	To be aware of the various concepts in Computer Programming.
		CO3	Apply optimum memory management techniques for declaring and processing data.
		CO4	Develop C programs to solve real-world problems.
Software Lab I	CA1CRP01	CO1	Develop problem-solving skills to translate "Algorithms" of problems to programs using C language.
		CO2	Write effective and efficient well-structured modular C programs.
		CO3	Develop into competent programmers with the ability to solve problems of reasonable size and design code.
English-I	EN1CC01	CO1	Recognize the terms and concepts of elementary grammar.
		CO2	Identify the principles of language.

Dr. Soumya. K. Menon
Faculty Coordinator

Dr. G SASHI KUMAR
PRINCIPAL
SCMS SCHOOL OF TECHNOLOGY AND MANAGEMENT

		CO3	Apply the grammatical rules in formal and informal communication effectively.
		CO4	Analyze the situations where different grammatical units are used
		CO5	Develop the ability to compose pieces of literary writing.
Discrete Mathematics (I)	MM1CMT03	CO1	Define the fundamental concepts ofset theory.
		CO2	Apply propositional and predicate logic
		CO3	Apply the concepts of relation to Partially Ordered Sets and Complete Lattices.
		CO4	Solve problems with Modular arithmetic's, Group Theory.
Basic Statistics	ST1CMT31	CO1	Students will be able to define the basic concepts of statistics and probability theory.
		CO2	Students will be able to explain various measures and methods used for both univariate and bivariate data.
		CO3	Students will be able to apply methods and theorems to solve various statistical problems
		CO4	Students will be able to compare different methods used for analyzing the data.
		CO5	Students will be able to solve the problems given a set of data and can validate it.

Dr. Soumya. le. Menon
Faculty Coordinator

Dr. G SASHI KUMAR
PRINCIPAL
SCMS SCHOOL OF TECHNOLOGY AND MANAGEMENT

SEMESTER 2			
Course Name	**Course Code**	**CO Number**	**CO**
English-II	EN2CC03	CO1	Describe the major issues of contemporary significance
		CO2	Explain the conflicts and themes raised through war authoritarian regimes, and refugees
		CO3	Evaluate the concurrent issues from diverse perspectives
		CO4	Analyse the current developments in the world
Discrete Mathematics (II)	MM2CMT03	CO1	Define the important terms used in the various topics included in the course.
		CO2	Demonstrate an understanding of Boolean Algebra (including logic gates), Graphs, Trees and Matrices.
		CO3	Apply the operations of Matrices, Boolean Algebra and the theory of Graphs and Trees to solve problems.
Data Base Management System	CA2CRT03	CO1	Define the terminology, features, models, schema and characteristics of a database systems.
		CO2	Explain the concept of Transaction and Query processing.
		CO3	Retrieve any type of information from a data base by applying complex queries in SQL.
		CO4	Design conceptual models of a database using ER modelling for real life applications and also construct queries in Relational Algebra.
		CO5	Create a normalized database for a real-life application.
Computer Organization and Architecture	CA2CRT04	CO1	Students will be able to define the fundamental concepts of computers organization
		CO2	Students will be able to describe the theory and architecture of computer and its fundamental parts including parallel processing and pipelining
		CO3	Students will be able to determine the coordination and the role of different components in the computer for a program execution

Dr. Sounuya. K. Menon
Faculty Coordinator

Dr. G SASHI KUMAR
PRINCIPAL
SCMS SCHOOL OF TECHNOLOGY AND MANAGEMENT

		CO4	Students will be able to analyze and compare the architectural differences in different processors.
		CO5	Students will be able to evaluate the enhancement in the performance of computer by incorporating new concepts and technological developments
Object-oriented programming with C++	CA2CRT05	CO1	Students will be able to demonstrate the use of various OOPs concepts with the help of programs.
		CO2	Students will be able to classify inheritance with the understanding of early and late binding, usage of exception handling, generic programming.
		CO3	Students will be able to describe the concept of function overloading, operator overloading, virtual functions and polymorphism.
		CO4	Students will be able to Understand dynamic memory management techniques using pointers, constructors, destructors.
		CO5	Students will be able to Illustrate the process of data file manipulations using C++.
Software Lab- II	CA2CRP02	CO1	Create and alter table structures using MySQL.
		CO2	Build subqueries to extract rows from processed data
		CO3	Formulate queries to perform Insert, update and delete, select and rollback operations in a database.
		CO4	Create nested quries to perform various operations.

Dr. Saranya L Menon
Faculty Coordinator

Dr. G BASHI KUMAR
PRINCIPAL
SCMS SCHOOL OF TECHNOLOGY AND MANAGEMENT

SEMESTER 3			
Course Name	**Course Code**	**CO Number**	**CO**
Advanced Statistical methods	ST3CMT32	CO1	Define and state the advanced statistical methods used for statistical inferences.
		CO2	Describe various distributions, estimation, and hypothesis concepts.
		CO3	Apply various methods to solve statistical problems as well as to test a hypothesis.
		CO4	Compare different statistical methods that can be applied in different circumstances
		CO5	Judge the type of test applicable for hypothesis validity according to the given situations.
Computer Graphics	CA3CRT06	CO1	Define the fundamental concepts of computer graphics.
		CO2	Describe the use of the components of a graphics system and become familiar with the building approach of graphics system components and algorithms related to them.
		CO3	Apply computer graphics concepts in various applications
		CO4	Analyze the fundamentals of computer graphics including animation, underlying technologies, principles, and applications.
		CO5	Evaluate and compare the 2D and 3D concepts while applying to various applications.
Microprocessor and PC Hardware	CA3CRT07	CO1	Apply knowledge and demonstrate programming proficiency using the various addressing modes and data transfer instructions of the target microprocessor and microcontroller.
		CO2	Compare accepted standards and guidelines to select the appropriate microprocessors (8085 & 8086) and microcontrollers to meet specified performance requirements.
		CO3	Analyze assembly language programs; select appropriate assemble into the machine a cross-assembler utility

Dr. Soumya Ic Menon
Faculty Coordinator

PRINCIPAL
SCMS SCHOOL OF TECHNOLOGY AND MANAGEMENT

			of a microprocessor and microcontroller.
		CO4	Design electrical circuitry to the Microprocessor I/O ports in order to interface the processor to external devices.
		CO5	Evaluate assembly language programs and download the machine code that will provide solutions real-world control problems.
Data Structure using C++	CA3CRT09	CO1	Students will be able to understand the nature of different data structures and define them.
		CO2	Students will be able to describe different data structures and explain the operations permissible on data structures.
		CO3	Students will be able to illustrate the various data structures representations, file organizations and hashing techniques.
		CO4	Students will be able to compare the different data structures and evaluate their pros and cons.
		CO5	Students will be able to develop algorithms to resolve various real-world problems.
Operating Systems	CA3CRT08	CO1	Students will be able to state the features of operating systems.
		CO2	Students will be able to explain the concepts of operating systems.
		CO3	Students will be able apply knowledge relating to the concepts of operating systems
		CO4	Students will be able to distinguish the concepts of operating systems.
		CO5	Students will be able to evaluate various types of resource management used in operating systems.
Software Lab III	CA3CRP03	CO1	Students will be able to list the different linear and non-linear data structures.
		CO2	Students will be able to explain various data structures, their operations, and storage mechanisms.
		CO3	Students will be able to construct algorithms for creating and

Dr. Soumya. K. Menon
Faculty Coordinator

Dr. G S
PRINCIPAL
SCMS SCHOOL OF TECHNOLOGY AND MANAGEMENT

			manipulating different types of data structures.
		CO4	Students will be able to develop programs that manipulate the different data structures to solve problems of varying natures.

Dr. Soumya. C. Menon
Faculty Coordinator

DR. G SASHI KUMAR
PRINCIPAL
SCMS SCHOOL OF TECHNOLOGY AND MANAGEMENT

SEMESTER 4			
Course Name	**Course Code**	**CO Number**	**CO**
Operational Research	MM4CMT03	CO1	Students will be able to define linear and nonlinear programs.
		CO2	Students will be able to explain where operations research applies and about simulation.
		CO3	Students will be able to apply knowledge of various linear and nonlinear programming.
		CO4	Students will be able to estimate the transportation cost of products from source to destination and evaluate the traveling cost.
		CO5	Students will be able to Construct the network diagram
Design and Analysis of Algorithms	CA4CRT10	CO1	Define the terminology, features, and basic concepts of analysis and design of algorithms.
		CO2	Explain different existing methods and algorithm.
		CO3	Apply important algorithmic design patterns and methods of analysis
		CO4	Analyze the complexities of various algorithms.
		CO5	Compare the performance of different algorithms for a real-life application.
System Analysis & Software Engineering	CA4CRT11	CO1	Able to define software engineering process and practices, and demonstrate various process models.
		CO2	Able to describe the process of system modelling in detail.
		CO3	Students will be able to apply system testing and validation in the development life cycle.
		CO4	Illustrate the use of system testing and validation in the development life cycle.
		CO5	Students will be able to design the SRS document for project.
Linux Administration	CA4CRT12	CO1	Students will be able to define the various terminologies related to the Linux operating system.

Dr. Soumya K. Menon
Faculty Coordinator

Dr. G SASHI KUMAR
PRINCIPAL
SCMS SCHOOL OF TECHNOLOGY AND MANAGEMENT

		CO2	Students will be able to explain the operations of various Linux commands.
		CO3	Students will able to illustrate the working and functionalities of the Linux operating system.
		CO4	Students will be able to analyze shell script programs and troubleshoot the outputs.
		CO5	Students will be able to develop shell script programs to automate system tasks.
Web Programming using PHP	CA4CRT13	CO1	Students will be able to state the features of web programming.
		CO2	Students will be able to explain the concepts of web programming.
		CO3	Students will be able apply knowledge relating to the concepts of web programming.
		CO4	Students will be able to distinguish the concepts of web programming.
		CO5	Students will be able to evaluate the concepts of web programming.
Software Lab IV	CA4CRP04	CO1	Students will be able to list the directory and file-based commands of Linux
		CO2	Students will be able to explain various filter utilities.
		CO3	Students will be able to create and manage users in Linux.
		CO4	Students will be able to develop shell script programs to solve problems of varying natures.

Dr. Soumya. K. Menon.
Faculty Coordinator

PRINCIPAL
SCMS SCHOOL OF TECHNOLOGY AND MANAGEMENT

SEMESTER 5			
Course Name	**Course Code**	**CO Number**	**CO**
Computer Networks	CA5CRT14	CO1	Able to define the general principles of data communication and networking
		CO2	Able to describe the different types of network topologies and protocols.
		CO3	Students will be able to apply the different types of network devices and their functions within a network
		CO4	Illustrate the layers of the OSI model and TCP/IP.
		CO5	Students will be able Understand and design the skills of subnetting and routing mechanisms
IT and Environment	CA5CRT15	CO1	Students will be able to define the concepts of IT and Environment.
		CO2	Students will be able to explain the concepts of IT and Environment.
		CO3	Students will be able to illustrate concepts of IT and Environment
		CO4	Students will be able to distinguish how the concepts of IT and Environment related to real life.
		CO5	Students will be able to apply the concepts of IT and Environment in real life.
Java Programming using Linux	CA5CRT16	CO1	Students will be able to recall various object-oriented concepts in Java.
		CO2	Students will be able to compare programming concepts and identify their applicability in problem-solving.
		CO3	Students will be able to apply their knowledge on various object-oriented programming concepts to solve real world problems.
		CO4	Students will be able to judge and decide on the best method to solve a problem
		CO5	Students will be able to develop applications as well as applet programs using Java.
Open Course- Brand Management	CA5OPT	CO1	To introduce brand identity and brand equity.

Dr. Soumya. K. Menon
Faculty Coordinator

Dr. G. BASHI KUMAR
PRINCIPAL
SCMS SCHOOL OF TECHNOLOGY AND MANAGEMENT

		CO2	To make students aware about importance of branding and logo design of a brand
		CO3	To familiarize students with brand extension and co-branding.
Software Lab V	CA5CRP05	CO1	Students will understand the oops concept and basics of Java programming
		CO2	Students will be able to apply error-handling techniques using exception handling and multithreading.
		CO3	Students will be able to describe Java data types, Control Structures, Functions, Object-oriented programming concepts.
		CO4	Students will be able to analyze various requirements needed for developing applications and identify solutions to computational problems.
		CO5	Students will be able to develop GUI using Applet and AWT tool kit.

Dr. Soumya. Ic. Menon.
Faculty Coordinator

Dr G SASHI KUMAR
PRINCIPAL
SCMS SCHOOL OF TECHNOLOGY AND MANAGEMENT

SEMESTER 6			
Course Name	**Course Code**	**CO Number**	**CO**
Cloud Computing	CA6CRT17	CO1	Learn the basics of cloud computing including its benefits, challenges, and services. Explain the concepts of resource virtualization, resource pooling sharing, and provisioning
		CO2	Discuss the scaling in the cloud, capacity planning, and load balancing. Explain file system and storage.
		CO3	Describe the multi-tenant software and data in the cloud. Learn database technology. Describe the content delivery network, security reference model, security issues, privacy, and compliance issues.
		CO4	Explain portability and interoperability issues and cloud management, a programming model case study. Enumerate popular cloud services.
		CO5	Understand the enterprise architecture and SOA, Enterprise software, Enterprise custom applications, workflow and business processes, enterprise analytics and search and enterprise cloud computing ecosystem.
Mobile Application Development- Android	CA6CRT18	CO1	Define the fundamentals of Android
		CO2	Students will be able to understand the programming concepts & UI of Android
		CO3	Students will be able to apply activities and understand the usage of services on android
		CO4	Students will be able to develop database applications using SQLite
		CO5	Students will be able to explain th implementation of JSON and develo applications using Google Play service location services & maps
Elective-Data Mining	CA6PET	CO1	Understand and apply fundamental data mining concepts, including data preprocessing, transformation, and integration techniques.

Dr. Saanya · K · Menon ·
Faculty Coordinator

Dr. G SA[illegible] KUMAR
PRINCIPAL
SCMS SCHOOL OF TECHNOLOGY AND MANAGEMENT

		CO2	Analyze and implement various data mining algorithms for classification, regression, clustering, and association rule mining.
		CO3	Evaluate and interpret the results of data mining models using appropriate metrics and techniques to ensure model validity.
		CO4	Demonstrate proficiency in using data mining tools and software for practical data analysis and visualization tasks.
		CO5	Develop the ability to formulate data mining projects, from problem identification to data collection, analysis, and reporting results.

Dr. Soumya. K. Menon
Faculty Coordinator.

Dr. G SASHI KUMAR
PRINCIPAL
SCMS SCHOOL OF TECHNOLOGY AND MANAGEMENT

MASTER OF COMPUTER APPLICATIONS (MCA)

Department: Department of Computer Applications **Year: 2022 -23**

Program Name: Master of Computer Applications

Programme Educational Objectives (PEOs)

PEO1: Evolve as globally competent professionals possessing integrative skills for developing innovative solutions in multidisciplinary domains.

PEO2: Adapt themselves to lifelong learning through proficient activities on the latest technology trends needed for a successful career.

PEO3: Formulate themselves with Ethical Attitude and effective Communication Skills and admitted as committed empathetic citizens towards the requirements of society.

PEO4: Develop the ability to demonstrate team work with the flexibility of analytical reasoning for solving time-critical problems and robust human values for responsible professionals.

PEO5: Become an entrepreneur who can provide solutions and develop software products for enterprise needs.

PEO6: Gain versatile knowledge through real-time projects, workshops and seminars and provide a sustainable competitive approach R&D and meeting industry needs.

PEO7: Comprehend cross cultural, societal, professional, legal and ethical issues prevailing in the industry.

Programme Outcomes (POs)

PO1: Communicate Effectively:

Inculcate effective communication skills combined with professional & ethical attitude with the computing community and also society by comprehending and writing effective reports and documentation, making effective presentations, and providing and receiving clear instructions.

PO2: Individual & Team Work:

Function effectively in diverse teams as team leader and team member on multidisciplinary projects to demonstrate computing and management skills.

PO3: Problem Analysis:

Identify, critically analyze and formulate complex problems in multidisciplinary domains reaching substantiated conclusions using first principles of Mathematics, Sciences and Engineering.

PO4: Computational Knowledge:Relate & apply fundamental knowledge of computing

Dr. Sowmya K Menon
Faculty Coordinator.

SCMS SCHOOL OF TECHNOLOGY & MANAGEMENT ALUVA 683 106

Dr. G SASHIKUMAR
PRINCIPAL
SCMS SCHOOL OF TECHNOLOGY AND MANAGEMENT

technology and relevant domains for the conceptualization of models from defined problems appropriate to the discipline.

PO5: Design and Development of Solution:

Design, implement and evaluate complex business scenarios and contemporary issues into desired needs-based solutions with a passion for quality, competency and holistic approach.

PO6 : Solving Complex Computing Problems:

Use problem solving skills including design of experiments, analysis and interpretation of information and synthesis of the knowledge to unravel multifaceted industrial problems.

PO7 : Modern Tool Usage:

Create, select and apply appropriate skills, techniques, resources and modern engineering tools to solve social, cultural and industrial issues with global standards.

PO8 : Research and Lifelong Learning:

Engage in continuous learning as an expert by applying research-based knowledge and methodologies to design, analyze and interpret data for finding the Solutions for complex problems by applying modem technological tools.

PO9: Project Management and Finance:

Demonstrate knowledge and understanding of the engineering and management principles with computing skills to manage and estimate projects in multidisciplinary environments.

PO10: Entrepreneurship:

Find out the right opportunity for the utilization of innovative ideas and entrepreneurship to make value and wealth for the betterment of the individual and the society at large.

PO11: Social, Cultural, Environmental, Legal and Ethical Concern(s):

Recognize environmental, social, cultural, legal, ethical and cyber issues involved in the use of technology and other consequential responsibilities relevant to professional practice with an understanding of green environment initiative.

Programme Specific Outcomes (PSOs)

PSO1: Solidify foundation of mathematics, computer science, and problem-solving methodologies for effective implementation in real-life applications.

PSO2: Familiarize students about the principles of Software Engineering and Project Management with appropriate data modeling concepts and the latest technologies.

PSO3: Use of recent technologies, skills, and knowledge for the design and development of applications in the computing discipline.

Dr. Sowmya. Ic. Menon
Faculty Coordinator

SCMS SCHOOL OF TECHNOLOGY & MANAGEMENT ALUVA 683 106

Dr. G. SASHI KUMAR
PRINCIPAL
SCMS SCHOOL OF TECHNOLOGY AND MANAGEMENT

PSO4: Inculcate employability and entrepreneurship skills among students who can contribute innovative and advanced solutions for important life problems.

PSO5: Understand the concepts of Network and communication technologies, social networks, and other related aspects.

Dr. Sowmya. Ic. Menon
Faculty Coordinator

SCMS SCHOOL OF TECHNOLOGY & MANAGEMENT ALUVA 683 106

Dr. G SASHIKUMAR
PRINCIPAL
SCMS SCHOOL OF TECHNOLOGY AND MANAGEMENT

SEMESTER 1			
Course Name	**Course Code**	**CO Number**	**CO**
Mathematical& Statistical Foundation for Computer Applications	MCACT101	CO1	Understand the basics of Set Theory, Relations, and Functions and their application in the Computer Science field.
		CO2	Apply the Rules of Inference to solve problems.
		CO3	Familiar with the basic concepts of Probability Theory and Sampling Techniques.
		CO4	Design a probability model/ test of significance to solve a real-world problem.
Digital Logic & Computer Organization	MCACT102	CO1	Define the fundamental concepts of digital computer and computer organization
		CO2	Describe the theory and architecture of the digital computer and its fundamental parts including parallel processing and pipelining
		CO3	Determine the coordination and the role of different components in the computer for a program execution
		CO4	Solve problems with binary arithmetic, simplifying digital circuits, Boolean expressions, combinational and sequential circuits
		CO5	Evaluate the enhancement in the performance of computers by incorporating new concepts and technological developments
Structured Programming in C	MCACT103	CO1	Define the basic terminologies of the C programming Language
		CO2	Explain the concept of various programming structures used in C.
		CO3	Apply programming concepts of arrays, structures, pointers, files, and unions for implementing programs.
		CO4	Analyse logical and problem-solving skills.

Dr. Sowmya .L. Menon
Faculty Co-ordinator

Dr. G SASHI KUMAR
PRINCIPAL
SCMS SCHOOL OF TECHNOLOGY AND MANAGEMENT

		CO5	Create an application using C programming language.
Software Engineering and Object-oriented modeling	MCACT104	CO1	Identify suitable life cycle models to be used.
		CO2	Analyze a problem and identify and define the computing requirements for the problem.
		CO3	Translate a requirement specification to a design using an appropriate software engineering methodology.
		CO4	Formulate an appropriate testing strategy for the given software system.
		CO5	Analyze the basics of UML tools used for object-oriented modeling
Database Technology and NoSQL	MCACT105	CO1	Define the terminology, features, models, schema, and characteristics of database systems.
		CO2	Explain the concept of Transaction, Query processing, and new trends such as distributed database, replication, fragmentation, and NoSQL.
		CO3	Retrieve any type of information from a database by applying complex queries in SQL.
		CO4	Design conceptual models of a database using ER modeling for real-life applications.
		CO5	Create a normalized database for a real-life application.
Database Technology lab (MYSQL and MongoDB)	MCACP106	CO1	Describe and demonstrate data integrity: validity checking, uniqueness constraints, referential integrity, cascaded deletes and updates, and triggers.
		CO2	Prepare SQL queries that use multiple tables.
		CO3	Write SQL queries that involve correlated and non-correlated sub-queries, outer joins, inner joins, and self-joins.
		CO4	Create and manipulate the NoSQL Database

Dr. Soumya K. Menon
Faculty Co-ordinator

Dr. G SASI KUMAR
PRINCIPAL
SCMS SCHOOL OF TECHNOLOGY AND MANAGEMENT

Software Development Lab- I (C programming)	MCACP107	CO1	Select and model data using primitive and structured types.
		CO2	Construct programs that demonstrate effective use of C features including arrays, structures & Pointer
		CO3	Handle various sorting and searching techniques
		CO4	Create and manipulate Files using various file-handling functions
		CO5	Design and implement an application for a given problem domain
MCACT108 Employability Skill Training - Phase I	MCACT108	CO1	Understand all aspects of communication and its effect on giving and receiving information.
		CO2	Describe his/her analytical and lateral thinking, constructive argument capabilities, clarity of thoughts, and capability to discuss with a group.
		CO3	Analyze the purpose of professional interviews.
		CO4	Evaluate the importance of self-preparation.
		CO5	Students are able to apply their interviewing skills in an environment similar to an actual interview.

Dr. Sowmya. K. Menon
Faculty Coordinator

Dr G SASHI KUMAR
PRINCIPAL
SCMS SCHOOL OF TECHNOLOGY AND MANAGEMENT

SEMESTER 2			
Course Name	**Course Code**	**CO Number**	**CO**
Optimization Techniques for Computer Applications	MCACT201	CO1	Get basic insights into Applications of Operations Research in managerial decision Making.
		CO2	Familiar with Scientific Tools and models in OR for analyzing the Business.
		CO3	Understand the basics of Decision Science.
Data Structures and Algorithm Analysis	MCACT202	CO1	Have deep knowledge of the organization of data structures, Arrays, Linked Lists, Stacks, Queues, Trees, and Graphs.
		CO2	Select the appropriate data structures for solving the given problem.
		CO3	Differentiate sorting and searching methods and their features.
		CO4	Analyze the performance of devised algorithms using different analysis methods.
		CO5	Know the various algorithm design strategies and their applications. Thus, will be able to choose the more suitable method for the given scenario.
Computer Networking with TCP/IP	MCACT203	CO1	Define basic concepts of protocols and standards as well as various networking services
		CO2	Explain the fundamentals and services of various layers in TCP/IP Protocol Suit
		CO3	Apply the concepts of addressing for assigning IP addresses for implementing a network
		CO4	Analyze and compare the structure, formats of messages, and services offered by different protocols in each layer.
		CO5	Develop a model of a small

Dr. Soumya. L. Menon
Faculty Coordinator

PRINCIPAL
SCMS SCHOOL OF TECHNOLOGY AND MANAGEMENT

			network using class full/classless addressing.
Data Science & Big Data Analysis	MCACT204	CO1	Students will be able to define the organization of data mining techniques and big data
		CO2	Select and explain the appropriate big data technique for solving the given problem.
		CO3	Illustrate different techniques and their features.
		CO4	Analyse and compare the performance of different algorithms
		CO5	Evaluate various algorithm and their applications. Thus, will be able to choose a more suitable method for a given scenario.
Object-oriented Lab (Java Lab)	MCACP205	CO1	Define the fundamentals of PHP
		CO2	Students will be able to understand the programming concepts of PHP
		CO3	Students will be able to apply OOPS concepts in PHP
		CO4	Students will be able to develop GUI database applications using PHP and establish database connections using MySQL
		CO5	Students will be able to explain the development and implementation of frameworks in applications
Software development lab-II (PHP)	MCACP206	CO1	Define the basic fundamentals of PHP
		CO2	Students will be able to understand the programming concepts of PHP.
		CO3	Students will be able to apply OOPS concepts in PHP.
		CO4	Students will be able to develop GUI database applications using PHP and establish database connections using MySQL.

Dr. Soumya K. Menon
Faculty Coordinator

Dr. G. SABU KUMAR
PRINCIPAL
SCMS SCHOOL OF TECHNOLOGY AND MANAGEMENT

		CO5	Students will be able to explain the development and implementation of frameworks in applications.
Data structures Lab using C	MCACP207	CO1	Have deep knowledge of the organization of data structures, arrays, linked lists, stacks, queues, trees, and graphs.
		CO2	Select the appropriate data structures for solving the given problem.
		CO3	Differentiate sorting and searching methods and their features.

Dr. Sowmya. C. Menon
Faculty Coordinator

Dr. G.SASIKUMAR
PRINCIPAL
SCMS SCHOOL OF TECHNOLOGY AND MANAGEMENT

SEMESTER 3			
Course Name	**Course Code**	**CO Number**	**CO**
Machine Learning Techniques	MCACT301	CO1	Understand a very broad collection of machine learning algorithms and problems.
		CO2	Learn algorithmic topics of machine learning and mathematically deep enough to introduce the required theory.
		CO3	Develop an appreciation for what is involved in learning from data.
		CO4	Understand how to evaluate models generated from data.
Cyber Forensics	MCACT302	CO1	Understand the role of computer forensics in law enforcement and apply scientific methods for digital evidence analysis.
		CO2	Identify and evaluate various forensic technologies for military, law enforcement, and business applications.
		CO3	Apply data recovery techniques and follow legal procedures for collecting and preserving digital evidence.
		CO4	Conduct digital investigations using systematic models and report findings effectively.
		CO5	Analyze cybercrimes and apply relevant sections of the IT Act for legal compliance and enforcement.
Elective 1-Artificial Intelligence	MCA303ET	CO1	To explore the importance and relevance of AI in various fields and to understand the basic theory of problem-solving.
		CO2	To be familiar with searching strategies in AI
		CO3	Illustrate the knowledge representation and knowledge acquisition using algorithms and reasoning.

Dr. Soumya K Menon
Faculty Coordinator

		CO4	Illustrate the knowledge representation and knowledge acquisition using algorithms and reasoning.
		CO5	To be aware of the application of AI in different fields like NLP, Expert systems Robotics
Internet of Things (IoT)	MCA304ET	CO1	Understand IoT fundamentals, including design, protocols, and communication models.
		CO2	Analyze networking and communication protocols for domain-specific IoT applications.
		CO3	Explore key IoT and M2M protocols like SCADA, Zigbee, and security measures.
		CO4	Design IoT systems using Raspberry Pi, sensors, and data management techniques.
		CO5	Implement IoT solutions using Arduino with integrated sensors and actuators.
Python Programming for Data Science	MCACP305	CO1	Familiarizing the basics of python.
		CO2	Problem Solving using the efficient features of python.
		CO3	Application of the web frame work.
		CO4	Developing software projects comprising of static & dynamic web pages based on user requirements.
		CO5	Data Analytics and interpretation using data science tools
Advance Operating System Lab using Linux	MCACP306	CO1	Students familiarized with Linux operating system and its installation
		CO2	Students will have a thorough understanding of Shell programming and Linux Administration.
		CO3	Students will be able to set up and manage a Linux system.
Employability Skill Training-Phase 2	MCACT308	CO1	Evaluate self-assessment of strengths and weaknesses; identify what is

Dr. Sowmya. Ic. Menon
Faculty Coordinator

Dr. G
PRINCIPAL
SCMS SCHOOL OF TECHNOLOGY AND MANAGEMENT

			lacking for a better personality and improve on it.
		CO2	Analyze quantitative, verbal, and logical reasoning and comprehension problems in IT recruitment drives and other competitive exams.
		CO3	Create and write an effective cover letter and resume.

Dr. Soumya. K. Menon
Faculty Coordinator

Dr. P SASHI KUMAR
PRINCIPAL
SCMS SCHOOL OF TECHNOLOGY AND MANAGEMENT

Department : Computer Applications

Program Name : Integrated MCA **Year : 2022 -23**

Integrated Master of Computer Applications-Programme Outcomes

PROGRAMME EDUCATIONAL OBJECTIVES (PEO)

PEO1: To impart knowledge to students in the foundation of mathematics, computer application, problem solving and decision-making techniques for effective implementation in the area of software development.

PEO2: Students will be capable of communicating effectively and use recent technology, environments and platforms in analyzing, designing, developing and maintaining complex applications in the computer domain that are technically sound, economically feasible and socially acceptable.

PEO3: Students will exhibit communication skills, team work, ethical attitude, professionalism and adapt to current trends by engaging in lifelong learning.

PROGRAMME OUTCOME (PO)

At the end of the Programme, a student will be able to achieve the following programme outcomes:

PO1 :Computational Knowledge: Apply knowledge of computing fundamentals, computing specialization, mathematics, and domain knowledge appropriate for the computing specialization to the abstraction and conceptualization of computing models from defined problems and requirements.

PO2: Problem Analysis: Identify, formulate, research literature, and solve complex computing problems reaching substantiated conclusions using fundamental principles of mathematics, computing sciences, and relevant domain disciplines.

PO3. Design /Development of Solutions: Design and evaluate solutions for complex computing problems, and design and evaluate systems, components, or processes that meet specified needs with appropriate consideration for public health and safety, cultural, societal, and environmental considerations.

PO4:Conduct Investigations of Complex Computing Problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the

Dr. G SASHI KUMAR
PRINCIPAL
SCMS SCHOOL OF TECHNOLOGY AND MANAGEMENT

Dr. Sowmya. K Menon

information to provide valid conclusions.

PO5: Modern Tool Usage: Create, select, adapt and apply appropriate techniques, resources, and modern computing tools to complex computing activities, with an understanding of the limitations.

PO6:Professional Ethics: Understand and commit to professional ethics and cyber regulations, responsibilities, and norms of professional computing practice.

PO7:Life-long Learning: Recognize the need, and have the ability, to engage in independent learning for continual development as a computing professional.

PO8:Project management and finance: Demonstrate knowledge and understanding of the computing and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

PO9:Communication Efficacy: Communicate effectively with the computing community, and with society at large, about complex computing activities by being able to comprehend and write effective reports, design documentation, make effective presentations, and give and understand clear instructions.

PO10: Societal and Environmental Concern: Understand and assess societal, environmental, health, safety, legal, and cultural issues within local and global contexts, and the consequential responsibilities relevant to professional computing practice.

PO11: Individual and Team Work: Function effectively as an individual and as a member or leader in diverse teams and in multidisciplinary environments.

PO12:Innovation and Entrepreneurship : Identify a timely opportunity and use innovation to pursue that opportunity to create value and wealth for the betterment of the individual and society at large.

PROGRAM SPECIFIC OBJECTIVES (PSO)

PSO1: Recent Technology : Students will have sound theoretical knowledge and skill for analyzing real life problems, design complex computing systems appropriate to its solutions with the recent technology.

PSO2: Employability Skill : After Completing this program students will have the ability to pursue their career professionally with ethics as an individual or as a member of a team in software industry, corporate sector, Government organization, academia, research, consultancy firm, entrepreneurship and will possess knowledge and skill for problem solving and decision making.

Dr. Sowmya. K. Menon

Dr. G SASHI KUMAR
PRINCIPAL
SCMS SCHOOL OF TECHNOLOGY AND MANAGEMENT

PSO3: Management /Leadership skill and Analytical Reasoning : After this program students will possess management and leadership skills, analytical reasoning for solving time critical problems with best professional ethical practice, environmental and social concern.

Dr. Sowmya K. Menon

Dr. G. ASHI KUMAR
PRINCIPAL
SCMS SCHOOL OF TECHNOLOGY AND MANAGEMENT

Integrated Master of Computer Applications - Course Outcomes			
Semester 1			
Course Name	**Course Code**	**COs**	**Course Outcome**
English	IMCA1C01	CO1	Define and identify various methods to develop communication skills.
		CO2	Discuss and describe the strategies to improve listening, speaking, reading, and writing skills.
		CO3	Explain the skills required for creating a formal speech and participating in group discussion.
		CO4	Classify the sounds of English and their symbols.
		CO5	Develop the ability to converse on any topic.
Digital Electronics and microprocessors	IMCA1C02	CO1	Define the fundamental concepts of digital electronics and microprocessors.
		CO2	Describe the basic concepts of electronics and 8086 microprocessors including architecture.
		CO3	Apply Boolean laws and theorems in simplifying Boolean functions.
		CO4	Solve problems like conversion between various number systems, binary arithmetic, simplifying digital circuits, Boolean expressions, combinational and sequential circuits
		CO5	Design logic circuits with minimum cost
Statistics	IMCA1C03	CO1	Students will be able to understand and reproduce the core concepts of probability.
		CO2	Students will be able to understand the

Dr. Sowmya. K. Menon

DR. G SASHI KUMAR
PRINCIPAL
SCMS SCHOOL OF TECHNOLOGY AND MANAGEMENT

			concepts related to basic ideas in probability, sampling and testing.
		CO3	Students will be able to apply mathematical formulae to find the values in probability.
		CO4	Students will have the ability to create a statistical model from real life problems.
		CO5	Students will be able to evaluate the probability of an event.
Introduction to Computers & PC Hardware	IMCA1C04	CO1	Identify the components of standard desktop personal computers.
		CO2	Identify fundamental components and functions of personal computer operating systems.
		CO3	Install and Configure System Components
		CO4	Maintain and troubleshoot peripheral components.
		CO5	Troubleshoot system components.
Introduction to C Programming	IMCA1C05	CO1	List the different data types, operators, statements, predefined functions in C
		CO2	Explain the usage of different program elements in C.
		CO3	Apply the C language concepts to solve different problems using algorithms, flowcharts etc
		CO4	Discuss the different programming methodologies and evaluate their pros and cons.
		CO5	Study the different memory allocation mechanisms and elaborate their usage by creating efficient solutions to problems.
PC hardware Practicals	IMCA1P06	CO1	Identify the components of standard desktop personal computers.
		CO2	Identify fundamental components and

Dr. Sowmya. K. Menon

Dr. G SASHI KUMAR
PRINCIPAL
SCMS SCHOOL OF TECHNOLOGY AND MANAGEMENT

			functions of personal computer operating systems.
		CO3	Install and configure system components.
		CO4	Maintain and troubleshoot peripheral components.
		CO5	Troubleshoot system components.
C Practicals	IMCA1P07	CO1	Show the representation of data structures such as arrays, structures, unions.
		CO2	Explain the different methods used to store data using files.
		CO3	Apply modular programming concepts to develop reusable program elements.
		CO4	Solve problems of varying natures using different program constructs.
		CO5	Analyze problems encountered in everyday life, decide on the functionality required to solve it and create efficient solutions to problems.

Dr. Sowmya. K. Menon

Dr. G. SASHI KUMAR
PRINCIPAL
SCMS SCHOOL OF TECHNOLOGY AND MANAGEMENT

Integrated Master of Computer Applications-Course Outcomes			
Semester 2			
Course Name	**Course Code**	**COs**	**Course Outcome**
Fundamentals of Accounting	IMCA2C01	CO1	Awareness about the need and importance of accounting.
		CO2	Understand the different types of accounting systems
		CO3	Apply the rules of accounting system to prepare the books of accounts.
		CO4	Construct Final Accounts from the business transaction.
		CO5	Evaluate the business position of the organizations from their financial statements.
Probability and Statistics	IMCA2C02	CO1	Understand and reproduce the core concepts of probability.
		CO2	Understand the concepts related to basic ideas in probability, sampling and testing.
		CO3	Apply mathematical formulae to find the values in probability.
		CO4	Create a statistical model from the real life problems.
		CO5	Evaluate the probability of an event.
Computer Organization And Architecture	IMCA2C03	CO1	Define the fundamental concepts of computer organization
		CO2	Understand the theory and architecture of computer and its fundamental parts including parallel processing and pipelining
		CO3	Students will be able to determine the coordination and the role of different

Dr. Sowmya. K. Menon

Dr. G SASHI KUMAR
PRINCIPAL
SCMS SCHOOL OF TECHNOLOGY AND MANAGEMENT

			components in the computer for a program execution
		CO4	Students will be able to analyze and compare the architectural differences in different processors.
		CO5	Students will be able to evaluate the enhancement in the performance of computer by incorporating new concepts and technological developments
Data Structures- C	IMCA2C04	CO1	Students will be able to list the different types of data structures in C.
		CO2	Students will be able to describe and explain the different data structures and their operations.
		CO3	Students will be able to apply the data structures concepts learned to solve various real-world problems.
		CO4	Students will have the ability to design algorithms for manipulating various data structures,
		CO5	Students will be able to analyze the different sorting and searching techniques.
Object Oriented Programming with C++	IMCA2C05	CO1	Students will be able to list and define the basic concepts of object-oriented programming
		CO2	Students will be able to explain the usage of different program elements in C++.
		CO3	Students will be able to apply the concepts learned and generate fault tolerant code.
		CO4	Students will be able to write programs by applying the various oops concepts.
		CO5	Students will be able to analyze real world problems and create extensible, reusable code.
Data structures C	IMCA2P06	CO1	Students will be able to represent data in

Dr. Sowmya. K. Menon

Dr. G SASHI KUMAR
PRINCIPAL
SCMS SCHOOL OF TECHNOLOGY AND MANAGEMENT

Practicals			various formats including an array, linked list, trees etc.
		CO2	Describe various data structures along with how to manipulate them.
		CO3	Solve various real-world problems by applying the data structure concepts
		CO4	Understand the working of various data structures
		CO5	Analyze and simulate various sorting and searching techniques
C++ Practicals	IMCA2P07	CO1	Define the basic program elements of c++ programming language.
		CO2	Explain the different concepts of oops incorporated in a program using algorithms.
		CO3	Apply object-oriented programming concepts to develop reusable program elements.
		CO4	Solve problems of varying natures using different program constructs.
		CO5	Analyze problems encountered in everyday life, decide on the functionality required and create programs to solve it.

Dr. Sowmya. K. Menon.

Dr. G SASIKUMAR
PRINCIPAL
SCMS SCHOOL OF TECHNOLOGY AND MANAGEMENT

Integrated Master of Computer Applications-Course Outcomes			
Semester 3			
Course Name	**Course Code**	**COs**	**Course Outcome**
Mathematical Foundation of Computer Science	IMCA3C01	CO1	Define the important terms used in the various topics included in the course.
		CO2	Compute the compositions, properties, representations and inverses of Relations and Functions.
		CO3	Apply the operations of Sets, Rules of Inference and Graph Theory.
		CO4	Differentiate between the different types of Sets, Relations, Functions, Logicalstructures and Graphs.
		CO5	Evaluate problems using the concepts of Sets, Logic and Graphs.
Management Information Systems	IMCA3C02	CO1	Understand guiding principles and theories of Management.
		CO2	Understand the core functions of Management.
		CO3	Apply the stages of recruitment in different organizations.
		CO4	Customize and suggest appropriate performance appraisal systems for the organization.
		CO5	Evaluate the pros and cons of applying various marketing strategies
DBMS AND NO SQL	IMCA3C03	CO1	Define the terminology, features, models, schema and characteristics of a database systems.

Dr. Sowmya K. Menon

Dr. G SASHI KUMAR
PRINCIPAL
SCMS SCHOOL OF TECHNOLOGY AND MANAGEMENT

		CO2	Explain the concept of Transaction, Query processing and new trends such as distributed database, replication , fragmentation and NoSQL.
		CO3	Retrieve any type of information from a database by applying complex queries in SQL.
		CO4	Design conceptual models of a database using ER modelling for real life applications.
		CO5	Create a normalized database for a real life application.
Principles of Management	IMCA3C04	CO1	Understand guiding principles and theories of Management
		CO2	Understand the core functions of management.
		CO3	Apply for the stages of recruitment in different organizations.
		CO4	Customize , apply and suggest appropriate performance appraisal systems for the organization.
		CO5	Evaluate the pros and cons of applying various marketing strategies
Visual Programming (C#.NET)	IMCA3C05	CO1	List all the tools and features of visual studio framework.
		CO2	Competent to use the visual studio framework and ms sql database.
		CO3	Understand the usage of different tools to create windows-based applications.
		CO4	Design and develop applications with database connectivity by the use of C#.net language.
		CO5	Test and maintain the applications created in visual studio framework with MS SQL as database.
DBMS Practical	IMCA3P06	CO1	Describe and demonstrate data integrity.

Dr. Sowmya. K. Menon

Dr. G SASI KUMAR
PRINCIPAL
SCMS SCHOOL OF TECHNOLOGY AND MANAGEMENT

(ORACLE & Mongodb)			validity checking, uniqueness constraints, referential integrity, cascaded deletes and updates, triggers.
		CO2	Prepare SQL queries that use multiple tables.
		CO3	Write SQL queries that involve correlated and non-correlated sub queries, outer joins, inner joins, self joins.
		CO4	Create PLSQL block to manipulate the data.
		CO5	Create a normalized database for a real life application.
Visual Programmin g Practicals	IMCA3P07	CO1	Apply all the tools and features of visual studio framework.
		CO2	Familiarize the use of visual studio framework and ms sql database.
		CO3	Understand the usage of different tools to create windows-based applications and also in-depth knowledge about MS SQL Database.
		CO4 .	Design and develop applications with database connectivity by the use of C#.net language
		CO5	Familiarize the applications and undersatnd testing and maintenance of the applications created in visual studio framework with MS SQL as database.

Dr. Sowmya. K. Menon

Dr. G SASHIKUMAR
PRINCIPAL
SCMS SCHOOL OF TECHNOLOGY AND MANAGEMENT

Integrated Master of Computer Applications-Course Outcomes			
Semester 4			
Course Name	**Course Code**	**COs**	**Course Outcome**
Technical Communication	IMCA4C01	CO1	Understand the dynamics of communication in the technical world.
		CO2	Apply grammatically accurate sentences.
		CO3	Develop corporate skills needed for employment in the industry.
		CO4	Explain events, processes, and situations
		CO5	Create a job application along with a CV.
Java	IMCA4C02	CO1	Define the fundamental concepts of digital electronics and microprocessors.
		CO2	Differentiate between C , C++ , JAVA
		CO3	Apply Oops concepts in JAVA
		CO4	Explain the concept of multiple inheritance using interfaces
		CO5	Create GUI application using JAVA SWING and establish database connection using JDBC
Elective I - Client Server Computing	IMCA4E01	CO1	Students are getting theover all idea of client-server Concept
		CO2	Students getting the knowledge of client side hardware software and client side requirements
		CO3	Students are getting the knowledge of server side hardware , server environment and server operating system.
		CO4	Students are getting the knowledge ofserver requirements

Dr. Sowmya. K. Menon

Dr. G SASHI KUMAR
PRINCIPAL
SCMS SCHOOL OF TECHNOLOGY AND MANAGEMENT

		CO5	Students will be able to get the idea about server data management and access tools
System Software	IMCA4C03	CO1	Recall the basic design of various system software.
		CO2	Discuss and explain the working of one pass, two pass and multi pass Assembler
		CO3	Illustrate the working of system software such as, linkers, loaders, Macro preprocessor
		CO4	Demonstrate the working of Editing and debugging Tools
		CO5	Examine the concept of Finite Automata and Regular Expression
E-Commerce	IMCA4C04	CO1	Understand the concept of e-commerce
		CO2	Fair idea on the infrastructure required from e commerce
		CO3	Evaluating servers and tools for maintaining e commerce sites
		CO4	Understanding security, copyright issues, intellectual property and payment systems
		CO5	Understanding intelligent agents,online advertisement etc
Java Practicals	IMCA4C05	CO1	Define the basic fundamentals of JAVA
		CO2	Apply Oops concepts in JAVA
		CO3	Explain the concept of multiple inheritance using Interface
		CO4	Design Graphical user Interface using Swing
		CO5	Develop GUI application with database
RDBMS Practicals	IMCA4P06	CO1	Design and implement a database schema for a given problem-domain
		CO2	Declare and enforce integrity constraints

Dr. Soumya K. Menon

Dr. G SASHI KUMAR
PRINCIPAL
SCMS SCHOOL OF TECHNOLOGY AND MANAGEMENT

			on a database using a state-of-the-art RDBMS
		CO3	Create a normalized database and apply triggers procedure functions and cursors and exception handling on database with.
		CO4	Design PL/SQL block
		CO5	Implement ODBC techniques.Students will be able to test and maintain the applications created in visual studio framework with MS SQL as database

Dr. Sowmya. K. Menon

Dr. G SASHI KUMAR
PRINCIPAL
SCMS SCHOOL OF TECHNOLOGY AND MANAGEMENT

Integrated Master of Computer Applications-Course Outcomes			
Semester 5			
Course Name	**Course Code**	**COs**	**Course Outcome**
Operations Research	IMCA 501	CO1	Students will be able to define linear and non linear programs
		CO2	Students will be able to explain where operations research applies and about simulation
		CO3	Students will be able apply knowledge on various linear and non linear programming
		CO4	Students will be able to estimate the transportation cost of products from sourse to destination and evaluate the travelling cost.
		CO5	Students will be able to Construct the network diagram
Compiler Design	IMCA 502	CO1	Draw Finite Automata from Regular expression
		CO2	Describe the basic structure of the Compiler
		CO3	Apply the Code optimization techniques
		CO4	Separate the lexical, syntactic and semantic analysis into meaningful phases for a compiler to undertake language translation
		CO5	Create parse tree representation and implement parsing techniques
Distributed Computing	IMCA 503	CO1	List the basic concept of distributed processing and their features.
		CO2	Explain about the main ideas of distributed processing.
		CO3	Apply the various techniques available in distributed processing.
		CO4	Differentiate the subfeatures, explain its role in distributed processing

Dr. Sowmya. K. Menon

ALUVA 683 106

Dr. G SASHI KUMAR
PRINCIPAL
SCMS SCHOOL OF TECHNOLOGY AND MANAGEMENT

		CO5	Evaluate the various technologies available in distributed processing
Computer Networks	IMCA 504	CO1	Understand the general principles of computer networks.
		CO2	Students will be able to describe, analyse, and evaluate various related
		CO3	Understand how packets in the Internet are delivered
		CO4	Understand and describe the layered protocol model
		CO5	Describe and analyze networks and services for homes, data centers, IoT/IoE, LANs, WANs
Software Engineering	IMCA 505	CO1	Identify suitable life cycle models to be used.
		CO2	Understanding of implementation issues such as modularity and coding standards
		CO3	Analyze a problem and identify and define the computing requirements to the problem.
		CO4	Formulate appropriate testing strategy for the given software system
		CO5	To develop, maintain and evaluate large-scale software systems.
Compiler Design Practicals	IMCA506	CO1	Draw parse tree representations for grammars.
		CO2	Describe various lexical analyzers and parsers.
		CO3	Simulate LEX and YACC tools
		CO4	Analyze various parsing techniques
		CO5	Generate intermediate code generations
Cloud Computing Practicals	IMCA 507	CO1	To build basic web applications using HTML
		CO2	To enhance the web applications build using HTML and CSS

Dr. Sowmya K. Menon

Dr. G SASHI KUMAR
PRINCIPAL
SCMS SCHOOL OF TECHNOLOGY AND MANAGEMENT

		CO3	To understand XML and performing validation of XML file using DTD and schemas
		CO4	To create web applications using javascript
		CO5	To create web applications using JSP and using MySQL to build database applications

Dr. Sowmya. K. Menon

Dr. G SASHI KUMAR
PRINCIPAL
SCMS SCHOOL OF TECHNOLOGY AND MANAGEMENT

Integrated Master of Computer Applications-Course Outcomes			
Semester 6			
Course Name	**Course Code**	**COs**	**Course Outcome**
Research Methodology	IMCA 601	CO1	Define terminologies related to research and publication, intellectual property rights, basic statistical measures and various tests of hypotheses.
		CO2	Explain the research process as well as ethical principles and challenges with respect to IPR in research and publishing.
		CO3	Compare/Differentiate between different types of research, intellectual property rights, basic statistical measures as well as various tests of hypotheses.
		CO4	Apply different statistical tests of hypothesis as well as statistical measures.
		CO5	Create a document using LATEX.
IT Infrastructure Management	IMCA 602	CO1	Define the knowledge of IT Infrastructure and management
		CO2	Explain various storage levels in IT.
		CO3	Illustrate Service Delivery and Service Support Process in IT infrastructure management.
		CO4	Compare the various security techniques in information technology
		CO5	Create new communication mechanism based on emerging trends in information technology.
Elective II - Android Programming	IMCA 603	CO1	Students are getting the idea of Android Programming, Fundamentals of Android Programming and UI components

Dr. Sowmya. K. Menon

Dr. G SASHI KUMAR
PRINCIPAL
SCMS SCHOOL OF TECHNOLOGY AND MANAGEMENT

		CO2	Students getting the knowledge of how the Android Programming application structure.
		CO3	Students are getting the knowledge of Emulator Android Virtual Device in android programming.
		CO4	Students are getting the knowledge of Access and work with databases under the Android operating system and menu options.
		CO5	Students will be able to get the idea about Adapters and Widgets and threads in android programming.

Dr. Sowya. K. Menon

Dr. G SASHI KUMAR
PRINCIPAL
SCMS SCHOOL OF TECHNOLOGY AND MANAGEMENT

Integrated Master of Computer Applications-Course Outcomes			
Semester 7			
Course Name	**Course Code**	**COs**	**Course Outcome**
Principles of Management & Accounting	IMCA 701	CO1	Students will be able to know about the guiding principles and theories of Management
		CO2	Students will be able to understand the core functions of Management.
		CO3	Students will be able to apply for the stages of recruitment in different organizations.
		CO4	Students will be able to customize ; suggest appropriate performance appraisal systems for the organisation.
		CO5	Students will be able to evaluate the pros and cons of applying various marketing strategies
Analysis & Design of Algorithms	IMCA 702	CO1	Analyze a given algorithm and express its time and space complexities in asymptotic notations.
		CO2	Ability to understand how the choice of data structures and the algorithm design methods impact the performance of programs.
		CO3	Ability to choose appropriate algorithm design techniques for solving problems. Solve recurrence equations using Iteration Method, Recurrence Tree Method and Master's Theorem. Solve Optimization problems using Greedy strategy.
		CO4	Design algorithms using Divide and Conquer Strategy and efficient algorithms using Back Tracking and Branch Bound Techniques for solving problems

Dr. Sowmya. K. Menon

Dr. G SASHI KUMAR
PRINCIPAL
SCMS SCHOOL OF TECHNOLOGY & MANAGEMENT

		CO5	Compare Dynamic Programming and Divide and Conquer Strategies and Classify computational problems into P, NP, NP-Hard and NP-Complete.
Object Oriented Programming through Java	IMCA 703	CO1	Students will be able to recall various object oriented concepts in Java.
		CO2	Students will be able to compare programming concepts and identify its applicability in problem solving.
		CO3	Students will be able to apply their knowledge on various object oriented programming concepts to solve real world problems.
		CO4	Students will be able to judge and decide on the best method to solve a problem
		CO5	Students will be able to develop application as well as applet programs using Java.
Software Engineering & Project Management	IMCA 704	CO1	Identify suitable software process models for the given computing problem
		CO2	Translate a requirement specification to a design using an appropriate software engineering methodology.
		CO3	Apply Project Management and quality assurance principles in software development
		CO4	Summarize different software cost estimation and project scheduling techniques.
		CO5	Formulate appropriate testing strategy for the given software system.
OOAD	IMCA705	CO1	Explain OOAD concepts and various UML diagrams
		CO2	Select an appropriate design pattern
		CO3	Illustrate about domain models and conceptual classes

Dr. Soumya. K. Menon

Dr. G SASHI KUMAR
PRINCIPAL
SCMS SCHOOL OF TECHNOLOGY AND MANAGEMENT

		CO4	Compare and contrast various testing techniques
		CO5	Construct projects using UML diagrams
PHP Programming Practicals	IMCA706	CO1	Students will be able to state the features of web programming.
		CO2	Students will be able to explain the concepts of web programming.
		CO3	Students will be able apply knowledge relating to the concepts of web programming.
		CO4	Students will be able to distinguish the concepts of web programming.
		CO5	Students will be able to design applications based on the concepts of web programming.
OOPS through Java Practicals	IMCA 707	CO1	Student will understand oops concept and basics of Java programming
		CO2	Students will be able to apply error handling techniques using exception handling and multithreading.
		CO3	Students will be able to describe Java data types, Control Structures, functions, Object oriented programming concepts
		CO4	Students will be able to analyze various requirements needs for developing applications andidntify solutions to computational problems
		CO5	Students will be able to develop GUI using Applet and AWT tool kit.

Dr. Sowmya. K. Menon

Dr. G SASHI KUMAR
PRINCIPAL
SCMS SCHOOL OF TECHNOLOGY AND MANAGEMENT

Integrated Master of Computer Applications-Course Outcomes			
Semester 8			
Course Name	**Course Code**	**COs**	**Course Outcome**
System Software And Automata	IMCA 801	CO1	Recall the basic design of various system software.
		CO2	Discuss and explain the working of one pass, two pass and multi pass Assembler
		CO3	Illustrate the working of system software such as, linkers, loaders, Macro pre processor
		CO4	Demonstrate the working of Editing and debugging Tools
		CO5	Examine the concept of Finite Automata and Regular Expression
Data Mining & Warehousing	IMCA 802	CO1	Characterize the kinds of patterns that can be discovered by association rule mining, classification and clustering.
		CO2	Understand and implement classical models and algorithms in data warehouses and data mining.
		CO3	Master data mining techniques in various applications like social, scientific and environmental context.
		CO4	Develop skill in selecting the appropriate data mining algorithm for solving practical problems.
		CO5	Understand knowledge discovery process and well known techniques.
TCP/IP Protocols	IMCA803	CO1	Define basic concepts of protocols and standards as well as various networking services.
		CO2	Explain the fundamentals and services of various layers in TCP/IP Protocol Suit.
		CO3	Apply the concepts of addressing for assigning

Dr. Sowmya K. Menon.

Dr. G SASIKUMAR
PRINCIPAL
SCMS SCHOOL OF TECHNOLOGY AND MANAGEMENT

			IP addresses for implementing a network.
		CO4	Analyze and Compare the structure, formats of messages, and services offered by different protocols in each layers.
		CO5	Develop a model of a small network using classfull / classless addressing.
Linux OS and Shell programming	IMCA 804	CO1	Students familiarize with linux operating system and its installation
		CO2	Students will have a thorough understanding of Shell programming and Linux Administration.
		CO3	Students will be able to setup and Manage a linux system .
		CO4	Understand Linux communication commands, linux administration commands, etc.
		CO5	Carry out task related to system performance management, backup,restore.
Elective III Big Data Analytics	IMCA 805	CO1	Students will be able to outline the tools and technologies used to store and analyze Big Data.
		CO2	Analyze the Big Data framework like Hadoop and NOSQL to efficiently store and process Big Data to generate analytics
		CO3	Design of Algorithms to solve Data Intensive Problems using Data Intensive Problems using Map Reduce Paradigm.
		CO4	Design and Implementation of Big Data Analytics using Hadoop related tools.
		CO5	Implementation of Big Data Analytics using HiveQL, Pig
Linux OS & Shell programming Practicals	IMCA 806	CO1	Students familiarize with linux operating system and its installation
		CO2	Explain Shell programming and Linux

Dr. Sowmya. T. C. Menon

PRINCIPAL
SCMS SCHOOL OF TECHNOLOGY AND MANAGEMENT

			Administration.
		CO3	Understand and manage a linux system .
		CO4	Understand and use communication commands in Linux
		CO5	Carry out tasks related to system performance management backup restore etc.

Dr. Sowmya. K. Menon

Dr. G SASHI KUMAR
PRINCIPAL
SCMS SCHOOL OF TECHNOLOGY AND MANAGEMENT

Integrated Master of Computer Applications-Course Outcomes			
Semester 9			
Course Name	**Course Code**	**COs**	**Course Outcome**
User Interface Design	IMCA 901	CO1	Define the basic concepts of user interface design
		CO2	Explain the principles and processes of user interface design
		CO3	Illustrate the use of user interface design in real life scenarios.
		CO4	Compare different interface designs.
		CO5	Evaluate the efficiency of various interfaces using what they learned through the course.
Knowledge Management & Applications	IMCA 902	CO1	Develop understand transformation of data into information and in turn into knowledge for better decision making.
		CO2	Understand a data warehouse, usage of OLAP tools and knowledge management system in an organization.
		CO3	Understand cross-disciplinary approaches to creation, storage and transfer knowledge within and between organizations.
		CO4	Understand and analyze different uses of knowledge management systems
		CO5	Design and Analyze Business Intelligence Systems

Dr. Sowmya K. Menon

Dr. G SASHI KUMAR
PRINCIPAL
SCMS SCHOOL OF TECHNOLOGY AND MANAGEMENT

Enterprise Resource Planning	IMCA 903	CO1	To understand the fundamental concepts of ERP systems, their architecture.
		CO2	Understand different modules in ERP.
		CO3	To develop and design the modules used in ERP systems.
		CO4	Customize the existing modules of ERP systems.
		CO5	Understand emerging trends in ERP systems through various case studies related to ERP systems.
Mobile Application Development – Adv Java	IMCA 904	CO1	Define the concept of multithreading and Socket Programming
		CO2	Describe Swing components to design window interfaces
		CO3	Apply JDBC connectivity to access database through Java Programs
		CO4	Figure out various Input/output Stream Classes
		CO5	Design dynamic web pages, using Servlets and JSP.
Elective IV - Information Security and E-commerce	IMCA 905	CO1	Understand the history of Information Security, Threats, Attacks and Secure Software Development
		CO2	Understand Security Technology Firewalls, VPNs, Intrusion detection, Access Control.
		CO3	Understand E-Commerce Framework and Consumer oriented E- Commerce applications.
		CO4	Understand and apply knowledge of Electronic Data Interchange.

Dr. Sowmya. K. Menon

Dr. G SASHI KUMAR
PRINCIPAL
SCMS SCHOOL OF TECHNOLOGY AND MANAGEMENT

		CO5	Understand working Internet security standards and encryption techniques.
Mobile Application Development -Practicals	IMCA 906	CO1	Define the basic fundamentals of Socket Programming and multithreading concepts
		CO2	Apply JDBC connectivity to access database through Java Programs
		CO3	Create dynamic web pages, using Servlets and JSP.
		CO4	Design Graphical user Interface using Java Swing
		CO5	Develop a GUI application with database
Python programming -Practicals	IMCA 907	CO1	Define the basic program elements of python programming language.
		CO2	Understans the commonly used operations involving various data structures like lists, dictionaries, tuples and sets.
		CO3	Apply the concepts learnt to develop solutions in Python.
		CO4	Solve problems of varying natures using different program constructs.
		CO5	Analyze problems encountered in everyday life, decide on the functionality required and create programs to solve it.

Faculty Coordinator
Dr. Sowmya. K. Menon
Name & Signature with date

Institution Seal

Head of the Institution
Name & Signature with date

Bachelor of Commerce (B. Com)- Program Outcomes

PO1. Apply the knowledge of Accounting and Financial Management to Business Situation
PO2. Analyse, interpret and construct financial statements
PO3. Interpret Laws of Contract Act, Companies Act, Sales of Goods Act, GST and Human Rights Act
PO4. Appreciate the Nuances of entreprenеurship & various mercantile/commerce
PO5. Develop good communication and soft skill in Team management and Leadership
PO6. Develop skills in computer application and/or finance, taxation and audit.

Bachelor of Commerce- Course Outcomes			
Course Name	**Course Code**	**COs**	**Course Outcome**
Semester I			
Dimensions and Methodology of Business Studies	CO1CRT01	CO1	Explain the meaning and functions of business and its importance in this present scenario.
		CO2	Evaluate how the government policies have transformed business in India.
		CO3	Identify technology integration in business and also help them to apply in real life.
		CO4	Justify the importance of doing business ethically.
		CO5	Acquire information about the major rules and regulations applicable to a business.
Financial Accounting I	CO1CRT02	CO1	Prepare financial statements using accounting standards.
		CO2	Pertain the accounting procedures in the preparation of financial statements from incomplete records.
		CO3	Make use of the accounting procedures of royalty.
		CO4	Apply the accounting procedures on consignment of goods.
Corporate Regulations and Administration	CO1CRT03	CO1	Identify the characteristics of a company accordingto Companies Act, 2013.
		CO2	Explain the procedure for the promotion and formation of a company.

JEFRIN JOHNSON

SCMS SCHOOL OF TECHNOLOGY & MANAGEMENT ALUVA 683 106

Dr. G SASHI KUMAR
PRINCIPAL
SCMS SCHOOL OF TECHNOLOGY AND MANAGEMENT

		CO3	Demonstrate the understanding of the rules related to raising of share capital and the contents of the prospectus.
		CO4	Describe the rules and provisions applicable in the administration of a company.
Banking and Insurance	CO1CMT01	CO1	To familiarize the students with the basic concepts and practice of banking and the principles of Insurance
		CO2	To provide the students an understanding about recent trends and innovations in the banking sector.
		CO3	Gain knowledge on various kinds of life insurance plans
		CO4	To provide basic awareness to students about the concept of risk and various types of insurance.
		CO5	Familiarize the types of the general insurance in India SE

JEFRIN JOHNSON

SCMS SCHOOL OF TECHNOLOGY & MANAGEMENT ALUVA 683 106

Dr. G SASHI KUMAR
PRINCIPAL
SCMS SCHOOL OF TECHNOLOGY AND MANAGEMENT

Semester 2			
Issues that matter	EN2CCTO3	CO1	Exercise critical thinking and reasoning skills to discriminate and form informed opinions on issues that are relevant.
		CO2	Analyze theoretical learning to current developments in the world and relate to their everyday experiences.
		CO3	Enumerate ideas with confidence in group discussions.
		CO4	Compose imaginatively, impact fully, clearly and accurately based on their reading of the texts.
Financial Accounting II	CO2CRT04	CO1	To gain knowledge on preparation of accounts in Hire purchase and Instalment system.
		CO2	To acquire the skill to prepare different types of branch accounts.
		CO3	To transform the accounting knowledge in preparing departmental accounting.
		CO4	To familiar with the procedure involved in the dissolution of partnership firms.
		CO5	To familiarize students with the application of important accounting standards.
Business Regulatory Framework	CO2CRT05	CO1	To understand the rules governing Indian Contract Act
		CO2	To familiarize the rights and discharges of duties by parties in Indemnity, Guaranty, Bailment and Pledge
		CO3	To acquire knowledge of rules governs setting up of agency and termination of agency
		CO4	To understand the legal provisions of Sale of Goods Act.
		CO5	To know the legal provisions of the laws relating to business.
Business Management	CO2CRT06	CO1	To acquire knowledge on principles of management
		CO2	To understand the corporate strategic planning techniques
		CO3	To acquire the knowledge on organization structure

JEFFRIN JOHNSON

SCMS SCHOOL OF TECHNOLOGY & MANAGEMENT ALUVA 683 106

Dr. G SASHI KUMAR
PRINCIPAL
SCMS SCHOOL OF TECHNOLOGY AND MANAGEMENT

		CO4	To familiarize with the different types of leadership
		CO5	To acquaint students with various the techniques of controlling and co-ordination management techniques like Quality Circle, TQM, BPR and Six Sigma
Principles of Business Decisions	CO2CMT02	CO1	To help the students to understand Decision-making and application of economic theories in decision-making.
		CO2	To acquaint students with concept of demand, demand theory demands forecasting.
		CO3	To imparting idea about production function and analysis.
		CO4	To enable the students to understand Cost analysis.
		CO5	To make the students familiar with the pricing in different markets.

JEFRIN JOHNSON

SCMS SCHOOL OF TECHNOLOGY & MANAGEMENT ALUVA 683 106

Dr. G SASHI KUMAR
PRINCIPAL
SCMS SCHOOL OF TECHNOLOGY AND MANAGEMENT

Semester 3			
English	CO3CRT02	CO1	The subtle negotiations of Indigenous and Diasporic identities with -in literature.
		CO2	The Fissures,the tensions and the interstices present in South Asian regional identities.
		CO3	The emergence of Life writing and alternate/alternative/marginal identities.
Corporate Accounts I	CO3CRT07	CO1	To make the students familiarise with the rules relating to issues of shares and debentures.
		CO2	To make the students familiarise with the rules relating to underwriting of shares.
		CO3	To familiar with computation of the financial results of companies.
		CO4	To familiar with preparation of Investments account .
		CO5	To familiar with computation of Insurance claims.
Quantitative Techniques for Business-I	CO3CRT08	CO1	To explain the features and methods of statistics.
		CO2	To apply the appropriate sampling survey method and collect data.
		CO3	To calculate an appropriate measure of central Tendency.
		CO4	To calculate an appropriate measure of dispersion
		CO5	To interpolate and extrapolate a value from a series and use it for forecasting.
Financial Markets and Operations	CO3CRTO9	CO1	To introduce the operations of Indian financial system to the students.
		CO2	To create awareness regarding the operations of primary market in India.
		CO3	To understand the role of secondary market in the financial market operations.

JEFFRIN JOHNSON

Dr. G SASHI KUMAR
PRINCIPAL
SCMS SCHOOL OF TECHNOLOGY AND MANAGEMENT

		CO4	To gain knowledge about the mutual funds, its operations, advantages and disadvantages.
		CO5	To acquire knowledge about the various derivative instruments deal in the Indian financial market.
Marketing Management	CO3CRT10	CO1	To understand the marketing concepts and marketing environment.
		CO2	To acquire knowledge on product planning and product life cycle.
		CO3	To gain knowledge on choice of distribution channels and pricing strategies.
		CO4	To understand the various methods of promotion.
		CO5	To understand the peculiarities of marketing, marketing of agricultural products and functions of commodity market.
Goods and Service Tax	CO3OCT01	CO1	To provide knowledge about goods service tax.
		CO2	To create employability to the students in the commercial tax practices.
		CO3	To understand the procedure for registration, payment and refund of GST.
		CO4	To know tax related with movement of goods.
		CO5	To understand the appeals, offences and penalties with respect to GST.
Information Technology for Business	CO3OCT02	CO1	Define informatics and other terms related to information technology
		CO2	List various types of hardwares and softwares with examples.
		CO3	Design Webpages for organizations
		CO4	Analyse the role of information technology in society.

JEFRIN JOHNSON

Dr. G SASHI KUMAR
PRINCIPAL
SCMS SCHOOL OF TECHNOLOGY AND MANAGEMENT

Semester 4			
Corporate Accounts-II	CO4CRT11	CO1	To compute the final accounts for a corporate group like banking companies
		CO2	To compute the final accounts for insurance companies
		CO3	To give a detailed idea about internal reorganization of companies
		CO4	To apply the knowledge gained in preparation of final accounts of amalgamated companies
		CO5	To study the procedure followed for the liquidation of companies
Quantitative Techniques for Business	CO4CRT12	CO1	To provide exposure on calculation of measures of correlation
		CO2	To provide l exposure on calculation of Regression
		CO3	To acquaint students with the concept of index number
		CO4	To introduce the students about the concept of provability
		CO5	To acquire knowledge about time series analysis
Entrepreneurship Development and Project Management	CO4CRT13	CO1	To understand the concept, functions and growth of entrepreneurship
		CO2	To familiarise with project identification and feasibility analysis
		CO3	To learn to design and appraise the project and factors influencing the plant location.
		CO4	To acquire the knowledge on formalities and documentation for registration
		CO5	CO5- To understand the government policies for the growth of SS
Financial Services	CO4OCT01	CO1	To create basic idea about financial services and merchant baking.
		CO2	To facilitate the knowledge about venture capital and securitization.
		CO3	To understand the concept of leasing and factoring.
		CO4	To familiarity with the credit rating.

JEFRIN JOHNSON

SCMS SCHOOL OF TECHNOLOGY & MANAGEMENT ALUVA 683 106

Dr. G SASHI KUMAR
PRINCIPAL
SCMS SCHOOL OF TECHNOLOGY AND MANAGEMENT

		CO5	To aware about the concept of mergers and acquisitions.
Information Technology for Office	CO3OCP01	CO1	To enable the students to master in MS Word 2013
		CO2	To enable the students to master in adobe page maker
		CO3	To enable the students to master in MS Excel 2013
		CO4	To enable the students to master in advanced MS Excel 2013
		CO5	To enable the students to master in MS Powerpoint 2013

JEFRIN JOHNSON

SCMS SCHOOL OF TECHNOLOGY & MANAGEMENT ALUVA 683 106

Dr. G SASHI KUMAR
PRINCIPAL
SCMS SCHOOL OF TECHNOLOGY AND MANAGEMENT

Semester 5			
Cost Accounting-I	CO5CRT14	CO1	To understand the concept of costing and related terms.
		CO2	To familiarity with the estimation and controlling of material cost
		CO3	To understand the estimation and controlling of labour cost
		CO4	To familiarity with the estimation of overhead cost
		CO5	To able to prepare cost sheet
Environment Management and Human Rights	CO5CRT15	CO1	To give the students an understanding of natural resources and ecosystems
		CO2	To create awareness among students about the importance of biodiversity and its conservation.
		CO3	To create awareness among students about the consequences of pollution and possible solutions to avoid pollution
		CO4	To familiarize students with human rights
		CO5	To examine the application of Human rights in the field
Financial Management	CO5CRT16	CO1	To learn the theoretical foundations of financial management and Financial management decisions.
		CO2	To familiarize the theories of capital structure and the concept of cost of capital.
		CO3	To evaluate feasibility of various investment options.
		CO4	To provide basic knowledge about working capital management.
		CO5	To understand the factors determining dividend policy adopted by companies.
Brand Management	BA50PT22(A)	CO1	To introduce about brand identity and brand equity.
		CO2	To make students aware about importance of branding and logo design of a brand.
		CO3	To familiarise the students with brand extension and co-branding.

JEFRIN JOHNSON

Dr. G BASHI KUMAR
PRINCIPAL
SCMS SCHOOL OF TECHNOLOGY AND MANAGEMENT

Income Tax-I	CO5OCT01	CO1	To collect the basic concepts and definitions of Income Tax Act 1961.
		CO2	To know the residential status of assesse and incomes exempted from tax.
		CO3	To familiar with the computation of income from salary.
		CO4	To familiar with the computation of income from house property.
		CO5	To familiar with the computation of income from business and profession.
Computerised Accounting	CO5OCT02	CO1	To equip the students to meet the demands of the industry by mastering them with industry sought after computerised accounting packages.
		CO2	To expose the students to computer applications in the field of accounting.
		CO3	To develop practical skills in the application of tally accounting packages
		CO4	To develop awareness regarding statutory features especially GST features
		CO5	To make the students make aware of the payroll information and vouchers

JEFRIN JOHNSON

SCMS SCHOOL OF TECHNOLOGY & MANAGEMENT ALUVA 683 106

Dr. G SASHI KUMAR
PRINCIPAL
SCMS SCHOOL OF TECHNOLOGY AND MANAGEMENT

Semester 6			
Cost Accounting-II	CO6CRT17	CO1	To enable the students to understand job costing, batch costing and contract costing.
		CO2	To understand the students the different operating methods to control and reduce cost of rendering services
		CO3	To inform the students about the methods of costing and also used to ascertain the cost at each stage of manufacturing
		CO4	To aware the students to analyse the behavior of cost in relation to changes in volume of Output
		CO5	To understand the students about the different tools in the hands of management for effective utilization of resources.
Advertising and Sales Management	C06CRT18	CO1	By knowing about the various concepts related to advertisements, students will be able to identify misleading and false advertisements and will also get a general idea about framing advertisements.
		CO2	The students will acquire copy writing skills and will also be equipped with the ability to choose a particular medium for advertisement.
		CO3	The students will be able to decide an appropriate test for measuring the effectiveness of advertisement as they become aware of various tests for measuring the effectiveness of advertisements.
		CO4	Enable the students to prepare sales promotion budget and the knowledge about various sales promotion strategies may benefit those students who dream of a career in salesmanship.
		CO5	The students will be able to formulate their own strategies to manage sales force in their client organization.

JEERIN JOHNSON

SCMS SCHOOL OF TECHNOLOGY & MANAGEMENT ALUVA 683 106

Dr. G SASHI KUMAR
PRINCIPAL
SCMS SCHOOL OF TECHNOLOGY AND MANAGEMENT

Auditing and Assurance	C06CRT19	CO1	To acquaint themselves about the concepts and principles of auditing , auditing process and the objectives of auditing
		CO2	To familiarize with basic terms used in auditing
		CO3	To know more about internal control and internal check system
		CO4	To understand the duties and liabilities of a company auditor
		CO5	To get knowledge about preparation of audit report
		CO6	To understand more about government audit ,audit of charitable and educational organizations, hospitals, clubs etc.
Management Accounting	C06CRT20	CO1	To understand the basic concepts of management accounting.
		CO2	To understand the analysis of financial statements by using various methods.
		CO3	To enable the students to understand different ratios used for analyzing financial Statements.
		CO4	To helps the students to prepare fund flow statement for the business organization.
		CO5	To helps the students to prepare the cash flow statement required for the business.
Income Tax-II	C06OCT01	CO1	To familiar with the computation of capital gain.
		CO2	To familiar with the computation of income from other sources.

JEFFRIN JOHNSON

SCMS SCHOOL OF TECHNOLOGY & MANAGEMENT ALUVA 683 106

Dr. G SASHI KUMAR
PRINCIPAL
SCMS SCHOOL OF TECHNOLOGY AND MANAGEMENT

		CO3	To know about the aggregation of income and deduction u/s 80C to 80U.
		CO4	To know about the assessment of individuals.
		CO5	To aware about the income tax authorities and their powers and duties.
Software for Business and Research	C06OCT02	CO1	To impart knowledge to use IT in business research analysis
		CO2	To analyze data for business research
		CO3	To enable student to use SPSS for business research analysis
		CO4	To equip the students to use Libre office writer for research
		CO5	To help the students to use Libre office calc for business research operations

TERRIN Johnson

SCMS SCHOOL OF TECHNOLOGY & MANAGEMENT ALUVA 683 106

Dr. S SASHIKUMAR
PRINCIPAL
SCMS SCHOOL OF TECHNOLOGY AND MANAGEMENT