

CHRIST COLLEGE (AUTONOMOUS), IRINJALAKUDA

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UG - COURSE OUTCOME (ACADEMIC YEAR 2022-2023)

IRINJALAKUDA NORTH P.O., THRISSUR, KERALA – 680125

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Name of the Programme				Bachelor of Vocation Information Technology
Short Name of the Programme				Bvoc. IT
Code of the Programme				CCAVIT
Semester	Course code	Title	CO No.	Course Outcomes
1	SDC1IE01	INTRODUCTION TO IOT AND ELECTRONICS	CO1	Demonstrate the working of various semi-conductor devices, Logic Gates
			CO2	Discuss various BJT parameters, connections and configurations.
			CO3	Distinguish the generation of computers, the organization of various parts of system memory and discuss the parallel processing.
			CO4	Practice binary, hexadecimal and octal number systems and their arithmetic.
			CO5	Illustrate the methodology of M2M Communication in Internet of Things.
			CO6	Describe characteristics, logical and physical design, functional blocks and communication models of internet of things.
			CO7	Describe challenges and applications of IoT and Implement Iot using python tools.
	SDC1PP02	PYTHON PROGRAMMING	CO1	Describe the various functional units and components of computers.
			CO2	Illustrate problem solving and representation of procedure using algorithm and flowchart
			CO3	Design programs connecting decision structures, loops and string operations.
			CO4	Develop programs using functions and data structures like List, Tuple, Dictionaries.
			CO5	Develop the ability to write python applications using database connectivity and apply object-oriented concepts
	SDC1DB03	DATABASE MANAGEMENT	CO1	Use the Structured Query Language (SQL) and SQL syntax

		SYSTEM WITH MONGODB	CO2	Apply normalization techniques to normalize the database
			CO3	Explain the needs of database processing and controlling the consequences of concurrent data access
			CO4	Design data models using the entity relationship and developing database design
			CO5	Explain the relational model of data and usage of Relational Algebra.
	SDC1PP01P	PRACTICAL I: PYTHON PROGRAMMING	CO1	Practice Object Oriented Programming and files handling in Python
			CO2	Demonstrate basic data type in python
			CO3	Demonstrate list and tuple in python
			CO4	Develop control flow and functions concept in Python for solving problems.
			CO5	Make database connectivity in python programming language.
	SDC1RD02P	PRACTICAL 2 - RDBMS	CO1	Practical knowledge on designing and creating relational database systems.
			CO2	Design advanced queries in relational constraints, joins, set operations, aggregate functions, trigger, views and embedded SQL.
			CO3	Design and build ER Diagrams, Flow chart for related database systems.
			CO4	Implement transactions, concurrency control, and be able to do Database recovery.
			CO5	Formulate query, using SQL, solutions to a broad range of query and data update problems.
2	SDC2PC04	PROBLEM SOLVING USING C	CO1	Explain the overview, importance and program structure of C programming
			CO2	Describe C operators, Library and mathematical functions, and type conversion in expressions
			CO3	Develop & Implement C programs with different control structures like decision control, loop control and special cases.
			CO4	Demonstrate the concept of pointer and

				perform I/O operations in files
			CO5	Design C programs using arrays, structures, unions, dynamic memory allocation functions and command line arguments.
	SDC2ME05	MICROSOFT EXCEL WITH VBA AND BUSINESS ANALYTICS	CO1	Discuss the elements of human logic manifest in Excel's user interface, and some of the ways those elements manifest in Excel VBA
			CO2	Demonstrate the essentials of the Excel Developer tab, Excel Object Model and VBA concepts
			CO3	Implement the essentials of the Excel Developer tab and VBA Editor
			CO4	Use macro-less workbooks as opposed to VBA Macro (and VBA Function) enabled workbooks
			CO5	Critique business implications, meaningfulness and applicability of observed data patterns and analytical inferences
	SDC2DS06	DATA SCIENCE WITH PYTHON	CO1	Explain the philosophy and basic tools of Exploratory data analysis
			CO2	Analyse different Machine learning algorithms used in data science
			CO3	Use pandas and NumPy methods to analyze data.
			CO4	Demonstrate the fundamentals of some of the most widely used Python packages; including NumPy, Pandas and Matplotlib, then apply them to Data Analysis and Data Visualization projects.
			CO5	Demonstrate the concepts, statistics, data analysis and other related methods in data science
	SDC2ME03P	PRACTICAL 3: MICROSOFT EXCEL WITH VBA AND PYTHON FOR DATA SCIENCE	CO1	Appraise in Data Analysis and Data Visualization using python tools.
			CO2	Create VBA code, VBA subroutines and functions.
			CO3	Apply about various programming elements to solve problems through code, including variables, objects, conditional statements, and loops.

3			CO4	Choose how to eliminate, avoid, or handle errors in VBA code, and optimize its performance
			CO5	Create applications with the support of packages in Python.
	SDC2MP01Pr	MINI PROJECT	CO1	Recognize to work as a team and to focus on getting a working project done on time with each student.
			CO2	Demonstrate the ability to locate and use technical information from multiple sources.
			CO3	Develop innovative thinking and thereby preparing students for main project
	SDC3CN09	COMPUTER NETWORKS FOR IOT	CO1	Categorize the basic taxonomy and terminology of the computer networking and enumerate the layers of OSI model.
			CO2	Distinguish Application layer and Presentation layer paradigms and protocols.
			CO3	Examine different protocols used in IOT
			CO4	Choose Network layer routing protocols and IP addressing
			CO5	Justify in reading the fundamentals and basics of Physical layer, and will apply them in real time applications.
	SDC3CD10	CIRCUIT DESIGN FOR IOT WITH RASPBERRY Pi	CO1	Demonstrate the definition and significance of the Internet of Things
			CO2	Analyze various protocols for Internet of Things
			CO3	Design a portable Internet of Things using Raspberry Pi
	SDC3CN04P	PRACTICAL 4: COMPUTER NETWORKS FOR IOT AND C PROGRAMMING	CO1	Implement the basic network administration commands & IOT Protocols
			CO2	Analyze different networking functions and features for implementing optimal solutions.
			CO3	Illustrate and explain the basic computer concepts and programming principles of C language.
			CO4	Develop C programs to solve simple mathematical and decision-making problems.
			CO5	Develop C programs to demonstrate the applications of derived data types such as

4				arrays, pointers, strings and functions.
	SDC3EI05P	PRACTICAL 5 - ELECTRONICS AND IOT WITH RASPBERRY PI	CO1	Design circuit diagrams for Wi-Fi, Bluetooth, Zigbee.
			CO2	Implement IoT applications using PC, Mobile, Web services, API, etc.
			CO3	Implement IoT to solve real world problems.
			CO4	Design simple circuits and mini projects.
			CO5	Explain the working of various electronic components
	SDC4LS12	EMBEDDED LINUX OS AND ANDROID PROGRAMMING	CO1	Demonstrate hardware and software design requirements of embedded systems
			CO2	Integrate multimedia, camera and Location based services in Android Application
			CO3	Design and develop user Interfaces for the Android platform.
			CO4	Explain Embedded Linux operating system architecture
			CO5	Describe Linux kernel modules
	SDC4DS13	DATA SCIENCE WITH R PROGRAMMING	CO1	Apply various operations and common functions to manipulate and analyze data using basic R syntax.
			CO2	Apply the different data structures in R
			CO3	Implement ggplot2 graphics for R for generating charts
	SDC4DS06P	PRACTICAL 6 - DATA SCIENCE WITH R AND DATA VISUALISATION USING QLIK VIEW & POWER BI	CO1	Categorize documents according to their labels.
			CO2	Make predictions on datasets using machine learning algorithms
			CO3	Implement data manipulation on datasets
			CO4	Describe how visualizations are created and configured using Qlikview and Power Bi
			CO5	Make charts to analyze multiple, huge data repositories using QlikView and Power Bi
	SDC4LS07P	PRATICAL 7 - LINUX OS AND ANDRIOD PROGRAMMING	CO1	Develop Regular Expressions using Shell script
			CO2	Explain Shell features.
			CO3	Explain the Installation and configuration of

5				Android application development tools.
			CO4	Apply Java programming concepts to Android application development.
			CO5	Design and develop user Interfaces for the Android platform.
	SDC4MP02Pr	MINI PROJECT	CO1	Identify the workplace, operating procedures, the department/company and its products, and other organizational concepts.
			CO2	Apply new technologies & design techniques (programming languages, database, etc.) concerned for devising a solution for a given problem statement.
			CO3	Develop students the knowledge of Electronics Components and soldering techniques and its package information for electronics circuit design.
			CO4	Design and development of Small IOT projects based on hardware and software for electronics systems.
	SDC5MC16	MICROCONTROLLER AND APPLICATIONS	CO1	Illustrate the architecture and instruction set of microcontrollers.
			CO2	Explain the real time control interrupts & timers.
			CO3	Design the interfacing of microcontrollers with external peripherals.
			CO4	Analyze Memory Interfacing circuits.
5	SDC5AI17	ARTIFICIAL INTELLIGENCE	CO1	Demonstrate fundamental understanding of the history of artificial intelligence (AI) and its foundations.
			CO2	Apply basic principles of AI in solutions that require problem solving, inference, perception, knowledge representation, and learning.
			CO3	Demonstrate proficiency developing applications in an 'AI language', expert system shell, or data mining tool.
			CO4	Demonstrate an ability to share in discussions of AI, its current scope and limitations, and societal implications
	SDC5ML18	MACHINE LEARNING USING	CO1	Describe the basic concepts and techniques of Machine Learning

		PYTHON	CO2	Implement regression, classification, clustering methods using python.
			CO3	Examine the dimensionality reduction Techniques.
			CO4	Compare the strengths and weaknesses of popular machine learning approaches.
			CO5	Design machine learning solutions to classification, regression, and clustering problems; and evaluate and interpret the results of the algorithms using tools in python.
	SDC5BD19	BIG DATA & CLOUD PLATFORM FOR IOT	CO1	Describe Big Data and its importance with its applications.
			CO2	Compare the tools required to manage and analyze big data like Hadoop, NoSql, MapReduce.
			CO3	Analyze potential applications of IoT and the cloud.
			CO4	Demonstrate the fundamentals and the deployment methods of Cloud Computing.
			CO5	Choose the most appropriate IoT Devices and Sensors, identify the Components that forms part of IoT Architecture.
	SDC5HN08P	PRACTICAL 8 - HADOOP & NOSQL DATABASE	CO1	Analyze the files in HDFS using the Filesystem API
			CO2	Demonstrate the importing of data from RDBMS to HDFS using Sqoop; exporting of data from HDFS to other data integration tools.
			CO3	Design a streaming Mapreduce job in Python.
			CO4	Use the various functions provided by MongoDB to achieve complex functionality - aggregate functions, indexing and more.
			CO5	Create Databases and design Schema using Advanced Queries in NoSQL.
	SDC5TML09 P	PRACTICAL 9 - MACHINE LEARNING USING PYTHON, DATA VISUALISATION USING TABLEAU,	CO1	Demonstrate how to generate datasets and bicluster it using clustering algorithms.
			CO2	Develop programs to demonstrate application of different classification and regression algorithms in datasets.

		SPSS	CO3	Develop programs to implement visualization of Multilayer perceptron.
			CO4	Implement sorting, filtering mapping, analytics, data preparation using Tableau tools.
			CO5	Create dashboards, quick table, charts and graphs using Tableau tools.
6	SDC6MP03Pr	PROJECT, PRODUCT DEVELOPMENT AND/OR INDUSTRIAL TRAINING AND/OR INTERNSHIP	CO1	Describe the workplace, operating procedures, the department/company and its products, and other organizational concepts.
			CO2	Apply various soft skills such as time management, positive attitude and communication skills during performance of the tasks assigned in internship organization.
			CO3	Demonstrate a sound technical knowledge of their selected project topic.
			CO4	Develop self-confidence, assertiveness, and basic work habits
	SDC6TT20	Term Paper	CO1	Demonstrate mastery of a subject and provides an opportunity for students to showcase their knowledge and understanding of a particular subject.
			CO2	Develop critical thinking skills by thinking critically about their subject matter, analyzing various sources and viewpoints, and evaluating evidence to support their arguments.
3	SDC3IS7	INTRODUCTORY STATISTICS	CO1	Describe the statistical system in India
			CO2	Discuss various measures of central tendency and dispersion and its relevance in statistical analysis.
			CO3	Discuss the measures of correlation.
			CO4	Discuss the concept of regression.
			CO5	Illustrate the concept of time series and index numbers.
	SDC3PT8	PROBABILITY THEORY	CO1	Understand the basic concepts of probability and to find probabilities of various events.
			CO2	Understand the different types of random variables.
			CO3	Apply the change of variable principle in

				probability distributions.
			CO4	Understand the distributional properties.
			CO5	Understand bivariate random variables and its distributional properties.
	GEC3A11	BASIC MATHEMATICS AND GENERAL AWARENESS	CO1	Apply numerical and reasoning skills in competitive exams.
			CO2	Solve the problems occurring in our everyday life.
			CO3	Understand some basics concept of research and its methodologies.
			CO4	Understand the basic concepts of research and its methodologies.
			CO5	Demonstrate the skills of modern banking and insurance.
4	SDC4PD11	PROBABILTY DISTRIBUTIONS AND SAMPLING THEORY	CO1	Summarize various discrete probability distributions and its properties.
			CO2	Summarize various continuous probability distributions and its properties.
			CO3	Understand various inequalities for further studies
			CO4	Classify different sampling techniques.
			CO5	Generalize sampling distributions.
5	SDC5SI14	STATISTICAL INFERENCES	CO1	Use a point estimator from a sample to estimate the entire population.
			CO2	Carryout Interval estimation over which the population parameter could exist using sample data.
			CO3	Summarize the formulation and testing of a hypothesis, using critical values to draw conclusions and determining probability of making errors in hypothesis tests.
			CO4	Illustrate large sample and small sample tests and its applications.
			CO5	Understand and implement various methods of non-parametric tests.
	SDC5SD15	STATISTICAL DATA ANALYSIS USING SPSS	CO1	Explain the basic functions of SPSS software and its tools.
			CO2	Carry out presentation of data using diagrams and descriptive statistics through SPSS

				software.
			CO3	Understand the basic principles behind inferential statistics.
			CO4	Carry out inferential statistical analysis using SPSS.
			CO5	Use SPSS output to produce scientifically sound research projects.
Name of the Programme				Bachelor of Vocation Food Processing Technology
Short Name of the Programme				B. Voc FPT
Code of the Programme				CCAVFP
Semester	Course code	Title	CO No.	Course Outcomes
1	SDC1PF01	PERSPECTIVE OF FOOD SCIENCE & TECHNOLOGY	CO1	Adapt basic knowledge of food science and technology.
			CO2	Explain structure and composition of different types of foods.
			CO3	Explain Basics of quality assessment, nutritional factor and health.
			CO4	Describe food additives, Preservatives, colours, improvers and the like.
			CO5	Review about journals, research centers and leading industries.
	SDC1FC02	FOOD CHEMISTRY, NUTRITION AND INSTRUMENTATION	CO1	Define the chemistry of foods - composition of food, role of each component and their interaction.
			CO2	Explain how processing conditions are likely to change the reactivity of food components.
			CO3	Explain the chemistry of the most important food components, including their properties and reactions.
			CO4	Apply their knowledge and laboratory skills to measure, control and modify the chemical and physical properties of food.
			CO5	Find the principles behind some of the most common analytical techniques used in food analysis and to get skilled in its usage.
	SDC1FC01P	FOOD CHEMISTRY,	CO1	Develop laboratory skills in analysis of food.

2		NUTRITION, INSTRUMENTATION (PRACTICAL)	CO2	Discuss lab instruments devices and their handling.
			CO3	Explain Experiential learning, the preparation of reagents and use of basic instrumentation.
	SDC1BC03	BAKERY AND CONFECTIONERY	CO1	Identify the fundamentals of baking and technology behind various bakery products.
			CO2	Recognize the fundamentals of baking and to familiarize various kinds of ingredients used in baking.
			CO3	Adapt the skill in preparation of different bakery items and bread making.
			CO4	Inspect in quality check and causes of spoilage in baking.
			CO5	Develop skill in various baking procedures and get to working knowledge of equipment.
	SDC1BC02P	BAKERY AND CONFECTIONERY (PRACTICAL)	CO1	Develop skills in various baking procedures in industry
			CO2	Explain the working of equipment needed for baking.
			CO3	Develop different bakery products.
			CO4	Prepare quality test for Products.
	SDC2PF04	PRINCIPLES OF FOOD PRESERVATION	CO1	Implement the systematic approach towards the basic and applied aspects of different preservation methods.
			CO2	Show the method of action of different preservatives.
			CO3	Describe various theoretical aspects of recent trends in food preservation.
			CO4	Adapt the skill in the appropriate usage of different preservatives that are used commonly in the industry.
			CO5	Explain different ways in which food spoilage occurs and the techniques to prevent it.
	SDC2DT05	DAIRY TECHNOLOGY	CO1	Explain the chemistry of milk and its products, composition, role of each component and their interactions.
			CO2	Identify the adulteration in milk and milk products.

3			CO3	Practice the preparation of different value-added products of milk.
			CO4	Adapt the skill in the quality check of Milk and milk products.
			CO5	Review the working of a dairy unit in a real-life situation.
	SDC2PF03P	PRINCIPLES OF FOOD PRESERVATION (PRACTICAL)	CO1	Develop skills in basic and applied aspects of different preservation techniques.
			CO2	Generate Fundamental understanding of Preservation
			CO3	Discuss the application of preservation
			CO4	Choose different preservatives used in food industry
	SDC2DT05	DAIRY TECHNOLOGY (PRACTICAL)	CO1	Assess platform test.
			CO2	Discuss the processing and production of different milk products.
			CO3	Develop the quality test in milk.
			CO4	Develop the adulteration test in milk.
	SDC2PF03P	FOOD SAFETY, FOOD LAWS & PACKAGING TECHNOLOGY	CO1	Analyze knowledge of various areas related to food processing and packaging.
			CO2	Discuss different processing and preservation techniques of variety foods.
			CO3	Review the importance of food safety, food laws and regulations.
			CO4	Discuss different packaging materials and effective packaging processes.
	SDC30A7	INTRODUCTION TO COMPUTERS AND OFFICE AUTOMATION	CO1	Explain the usage of computers and why computers are essentials.
			CO2	Discuss the internet web resources and evaluate on - line e- resources.
			CO3	Solve common business problems using appropriate information technology applications and systems.
			CO4	Identify categories of programs, systems software and applications, Organize and work with file and folders.
			CO5	Describe various types of network standards and communication software.

	SDC3FM8	FOOD MICROBIOLOGY	CO1	Describe the structure and characteristics of different microorganism.
			CO2	Explain the concept of sterilization and its importance in food processing.
			CO3	Explain the spoilage in different food commodities by means of microorganisms.
			CO4	Explain about aseptic culture techniques for bacteria.
			CO5	Discuss the importance of microbes in fermented food products.
	SDC3MT9	MILLING TECHNOLOGY	CO1	Illustrate various technologies in cereal and pulse processing and milling.
			CO2	Explain basic composition and structure of food grain.
			CO3	Discuss the basics of milling operations and byproducts utilization.
			CO4	Explain the processing of pulses and oilseeds
			CO5	Describe the production, distribution & storage of grains and their value-added products
	SDC3FM5P	FOOD MICROBIOLOGY & VALUE ADDITION (PRACTICAL	CO1	Demonstrate theory and practical skills in microscopy and their handling techniques and staining procedures.
			CO2	Assess the various culture media and their applications.
			CO3	Formulation of Products with the application of microbes.
	SDC3MT6P	MILLING TECHNOLOGY (PRACTICALS)	CO1	Demonstrate the adulteration test in spices.
			CO2	validate the practical implication of milling of spices.
			CO3	Discuss the analysis of basic parameter test in milling industry.
4	SDC4TM10	TECHNOLOGY OF MEAT AND EGG	CO1	Discuss the importance of livestock, egg and poultry in food security.
			CO2	Explain the slaughter processes in meat animals and poultry
			CO3	Describe the methods of processing and preservation of animal origin foods and byproduct utilization in this sector.

			CO4	Adapt knowledge about the structure, composition and nutritional quality of animal origin food products
			CO5	Implement the skill in the preparation of different value-added products using meat and egg.
	SDC4SP11	SEAFOOD PROCESSING TECHNOLOGY	CO1	Examine the microbiology of fish.
			CO2	Identify the different equipment used in fish processing.
			CO3	Describe the principles of different fish preservation methods.
			CO4	Develop skill in different fish preservation techniques.
			CO5	Explain the preparation of different value-added products using fish.
	SDC4FE12	FOOD ENGINEERING	CO1	Identify the mechanism by which various unit operations in food processing optimize.
			CO2	Define principles of heat and mass transfer phenomena.
			CO3	Describe the theories of refrigeration and freezing.
			CO4	Define rheological characteristics of food.
			CO5	Explain the working principles of heat exchangers. Evaporators, driers and boilers.
	SDC4TM7P	TECHNOLOGY OF MEAT AND EGG(PRACTICALS)	CO1	Examine the process and preservation of animal foods.
			CO2	Practice in preparation of different meat and egg products.
			CO3	Formulate egg quality parameters.
			CO4	Demonstrate the processing of different by-products of meat industry.
	SDC4SP8P	SEAFOOD PROCESSING TECHNOLOGY(PRACTICALS)	CO1	Develop different fish products.
			CO2	Explain different estimation and analysis methods in fish industry.
			CO3	Identify the quality assessment methods and their application.
	SDC5MM13	MARKETING MANAGEMENT	CO1	Discuss basic knowledge about the concepts, principles, tools and techniques of marketing.

5			CO2	Prepare necessary information Which help the students to choose a carrier in the field of marketing.
			CO3	Explain the students about latest trends in marketing.
	SDC5BU14	BY PRODUCT UTILIZATION AND WASTE MANAGEMENT	CO1	Review about the type of waste, its generation and the importance of waste management.
			CO2	Discuss about effluent treatment.
			CO3	Discuss the waste utilization in agro industries.
			CO4	Describe the concept of waste utilization of animal and marine products.
	SDC5FT15	FLAVOUR TECHNOLOGY AND SENSORY EVALUATION	CO1	Categorize different flavor and its analysis.
			CO2	Implement appropriate sensory methodology for a specified objectives and training on sensory evaluation.
			CO3	Discuss data collection and interpretation of sensory data
			CO4	Create and apply the skills to critique sensory methodology.
	SDC5TF16	TECHNOLOGY OF FRUITS AND VEGETABLES	CO1	Explain the processing and preservation of fruits and vegetables using various techniques.
			CO2	Describe the concept of quality in relation to fruit and vegetable-based products.
			CO3	Analyze different maturity indices of fruits and vegetables.
			CO4	Prepare different fruit products.
			CO5	Discuss the usage of different equipment used in fruit processing and preservation.
	SDC5TB17	TECHNOLOGY OF BEVERAGES	CO1	Discuss about the science and technology for processing different types of beverages.
			CO2	Explain processing of fruit juice beverages, carbohydrate beverages, dairy based beverages, tea and coffee.
			CO3	Illustrate the quality evaluation of alcoholic beverages.

6			CO4	Describe the manufacturing process and quality evaluation of packaged drinking water.
	SDC5FT9P	FLAVOUR TECHNOLOGY & SENSORY EVALUATION(Practicals)	CO1	Choose the analysis used in food industry for sensory evaluation.
			CO2	Discuss about different attributes of food and its significance.
			CO3	Inspect the procedure required to conduct sensory evaluation
	SDC5TF10P	TECHNOLOGY OF FRUITS AND VEGETABLES (PRACTICALS)	CO1	Discuss Method of analysis used in food industry for sensory evaluation.
			CO2	Discuss about different attributes of food and its significance.
			CO3	Recall the procedures required to conduct sensory evaluation.
	SDC5TB11P	TECHNOLOGY OF BEVERAGES AND BYPRODUCT UTILISATION (PRACTICALS)	CO1	Assess the quality of fruits and vegetables
			CO2	Discuss Principles and methods of preservation of fruits and vegetables.
			CO3	Develop proficiency skill in preserving fruits and vegetables into various products.
			CO4	Develop various fruits and vegetables products with quality assurance and safety.
		MAJOR PROJECT/ PRODUCT DEVELOPMENT/IN-PLANT TRAINING/INTERNSHIP	CO1	Students will apply theoretical concepts and principles learned throughout their academic coursework to address real-world problems and challenges encountered during the project development process.
			CO2	Students will gain hands-on experience in a professional work environment, applying theoretical knowledge and technical skills acquired in the classroom to real-world projects and tasks.
			CO3	Students will conduct market research and analysis to identify consumer needs, preferences, and emerging trends, informing the development of new products or improvements to existing products.
			CO4	Students will gain hands-on experience in a professional work environment, applying theoretical knowledge and technical skills acquired in the classroom to real-world projects and tasks.
			CO5	Students will network with industry professionals, mentors, and peers, building

				valuable professional relationships and expanding their professional network for future career opportunities.
Name of the Programme				Bachelor of Arts, Malayalam
Short Name of the Programme				B.A. Malayalam
Code of the Programme				CCAMAL
Semester	Course code	Title	CO No.	Course Outcomes
1	MAL1B01	നവോത്ഥാനമലയാളകവിത	CO1	കൊളോണിയൽ ആധുനികതയുടെ പശ്ചാത്തലത്തിൽ മലയാളകവിതയുടെ നവോത്ഥാനവും വികാസവും മനസ്സിലാക്കുന്നു.
			CO2	നവോത്ഥാനമൂല്യങ്ങൾ പുതിയതരം കവിതകളെ എങ്ങനെ സൃഷ്ടിച്ചു എന്ന് വിലയിരുത്താനുള്ള ശേഷി.
			CO3	കവിതകളെ അവയുടെ പ്രസ്ഥാനസ്വഭാവത്തെ മുൻനിറുത്തി വിശകലനം ചെയ്യാനുള്ള ശേഷി.
			CO4	പുതിയ ലോകബോധവും കാവ്യസങ്കല്പവും മലയാളകവിതയിൽ ഇടപെട്ടത് എങ്ങനെയെന്ന് വിശകലനം ചെയ്യാനുള്ള ശേഷി നേടുന്നു.
2	MAL2B02	കഥാസാഹിത്യം	CO1	മലയാള ചെറുകഥാസാഹിത്യത്തെ നിർണ്ണയിച്ച സാമൂഹിക ഘടകങ്ങളും ഘട്ടങ്ങളും തിരിച്ചറിയുന്നു.
			CO2	ആധുനികഘട്ടത്തിൽ കഥാസാഹിത്യത്തിൽ വന്ന പരിണാമങ്ങളെ വിശകലനം ചെയ്യുന്നു.
			CO3	കഥാസാഹിത്യത്തിലെ പുതിയ ചിന്തകൾക്കും പദ്ധതികൾക്കും കാരണമായ ഘടകങ്ങളെ

				വിശകലനം ചെയ്യുന്നു
			CO4	കീഴാളത, ദേശീയത, പരിസ്ഥിതി, സ്ത്രീ തുടങ്ങിയ പരികല്പനകൾ കമാസാഹിത്യത്തെയും ജീവിതത്തെയും പരിവർത്തിപ്പിച്ചതെങ്ങനെയെന്ന് വിശകലനം ചെയ്യുന്നു
3	MAL3B03	നവീനമലയാളകവിത	CO1	ആധുനികതയുടെ കടന്നുവരവ് ജീവിതത്തിലും സാഹിത്യത്തിലും വരുത്തിയ പരിവർത്തനങ്ങൾ വിശകലനം ചെയ്യുന്നു
			CO2	സമകാലരാഷ്ട്രീയസാഹചര്യം കവിതയിൽ ഇടപെട്ടതെങ്ങനെയെന്ന് വിശകലനം ചെയ്യുന്നു.
			CO3	ആധുനിക കവിതയിലെ പെൺലോകങ്ങൾ വിശകലനം ചെയ്യുന്നു
			CO4	ആധുനികാനന്തരമലയാളകവിതയുടെ പ്രമേയലോകവും ആഖ്യാനസമ്പ്രദായങ്ങളും വിശകലനം ചെയ്യുന്നു.
	MAL3B04	ദൃശ്യകലാസാഹിത്യം	CO1	കേരളത്തിന്റെ ദൃശ്യകലാപാരമ്പര്യത്തെക്കുറിച്ചുള്ള സാമാന്യധാരണ നേടുന്നു
			CO2	നാടകം എന്ന കലാരൂപത്തിന്റെ ഘടനാതലത്തിലും ആവിഷ്കാരതലത്തിലുമുള്ള സവിശേഷതകൾ വിശകലനം ചെയ്യുന്നു
			CO3	കേരളത്തിലെ ക്ലാസിക്ക് ദൃശ്യകലാരൂപങ്ങളും സാഹിത്യവുമായുള്ള ബന്ധം തിരിച്ചറിയുന്നു
			CO4	സാഹിത്യവും സിനിമയും തമ്മിലുള്ള ബന്ധം വിമർശനാത്മകമായി

				വിലയിരുത്തുന്നു
4	MAL4B 05	പ്രാചീന, മധ്യകാലമലയാള കവിത	CO1	മലയാളസാഹിത്യത്തിൽ പാട്ടിന്റെ ആദ്യകാലത്തെ സ്വഭാവവും സ്വരൂപവും മനസ്സിലാക്കുന്നു
			CO2	ആദ്യകാല മണിപ്രവാളത്തിന്റെ സ്വഭാവവും സ്വരൂപവും മനസ്സിലാക്കുകയും മലയാളഭാഷയുടെ പരിണാമത്തിൽ വരുത്തിയ സ്വാധീനം വിലയിരുത്തുകയും ചെയ്യുന്നു.
			CO3	പ്രാചീന മഹാകവിത്രയവും തുടർന്നുള്ളവരും ഭാഷയ്ക്കും സാഹിത്യത്തിനും നൽകിയ സംഭാവനകൾ വിലയിരുത്താനുള്ള ശേഷി
			CO4	നാടോടിജീവിതവും സംസ്കാരവും സംസ്കാരത്തിലും സാഹിത്യത്തിലും ഇടപെട്ടതെങ്ങനെയെന്ന് വിലയിരുത്തുന്നു
	MAL4B06	മലയാളനോവ ൽസാഹിത്യം	CO1	നോവൽസാഹിത്യത്തിന് ചരിത്രവും സമൂഹവുമായുള്ള ബന്ധത്തെ വിമർശനാത്മകമായി വിലയിരുത്താനുള്ള ശേഷി
			CO2	നവോത്ഥാനമൂല്യങ്ങൾ പുതിയതരം നോവലുകളെ എങ്ങനെ സൃഷ്ടിച്ചു എന്ന് വിലയിരുത്താനുള്ള ശേഷി
			CO3	ആധുനികത ഭാഷയിലും ആഖ്യാനതന്ത്രങ്ങളിലും എങ്ങനെ ഇടപെട്ടു എന്ന് വിലയിരുത്താനുള്ള ശേഷി
			CO4	കീഴാളത, ദേശീയത, പരിസ്ഥിതി, സ്ത്രീ തുടങ്ങിയ പരികല്പനകൾ സാഹിത്യത്തെയും ജീവിതത്തെയും പരിവർത്തിപ്പിച്ചതെങ്ങനെയെന്ന്

				വിശകലനം ചെയ്യുന്നു
5	MAL5B07	മലയാളവ്യാകരണം	CO1	വ്യാകരണം എന്ന വിജ്ഞാനശാഖയെ പരിചയപ്പെട്ട് അവിടത്തെ അടിസ്ഥാനസങ്കല്പനങ്ങൾ വിലയിരുത്തുന്നു.
			CO2	മലയാളവ്യാകരണത്തിലെ രൂപതലപരിമാത്രകളെ വിശകലനം ചെയ്യാനുള്ള പ്രാപ്തിനേടുന്നു
			CO3	നാമം, നാമരൂപാവലി എന്നിവയിൽ വന്ന മാറ്റങ്ങൾ വിലയിരുത്താനുള്ള ശേഷി നേടുന്നു
			CO4	ക്രിയ, ക്രിയാരൂപാവലി എന്നിവയിൽ വന്ന മാറ്റങ്ങൾ വിലയിരുത്താനുള്ള ശേഷി
	MAL5B08	പാശ്ചാത്യസാഹിത്യസിദ്ധാന്തങ്ങൾ	CO1	പാശ്ചാത്യസാഹിത്യമീമാംസയുടെ ആദ്യകാല സൈദ്ധാന്തികരെയും സിദ്ധാന്തങ്ങളെയും വിമർശനാത്മകമായി വിലയിരുത്തുന്നു
			CO2	കാല്പനികതയുടെ ഉദയവികാസങ്ങളും പരിണാമങ്ങളും വിശകലനം ചെയ്യുന്നു
			CO3	ആധുനികസാഹിത്യപ്രസ്ഥാനങ്ങളുടെ വളർച്ചയും പരിണാമവും വിലയിരുത്തുന്നു
			CO4	ആധുനികാനന്തരസാഹിത്യസിദ്ധാന്തങ്ങളും അവയുടെ പ്രയോഗപരിസരവും മനസ്സിലാക്കുന്നു
	MAL5B09	മലയാളസാഹിത്യവിമർശനം	CO1	മലയാള സാഹിത്യനിരൂപണത്തിന്റെ ചരിത്രവും ആദ്യകാലപ്രവണതകളും

				വിലയിരുത്തുന്നു
			CO2	മലയാളസാഹിത്യനിരൂപണത്തിലെ ദിശാപുതിയാനവും അതിന്റെ കാരണങ്ങളും വിലയിരുത്തുന്നു
			CO3	ആധുനികസാഹിത്യനിരൂപണപദ്ധതികളുടെ പ്രയോഗമാതൃകകൾ വിലയിരുത്തുന്നു
			CO4	ആധിനികാനന്തരസാഹിത്യനിരൂപണം : സാധ്യതകളും വെല്ലുവിളികളും തിരിച്ചറിയുന്നു
	MAL5B 10	നാടോടിവിജ്ഞാനീയം	CO1	ഒരു വിജ്ഞാനശാഖ എന്ന നിലയിൽ നാടോടിവിജ്ഞാനീയത്തെ മനസ്സിലാക്കുന്നു
			CO2	നാടോടിവാങ്മയങ്ങളെ പരിചയപ്പെടുകയും വിലയിരുത്തുകയും വർഗ്ഗീകരിക്കുകയും ചെയ്യുന്നു.
			CO3	നാടോടിദൃശ്യാവതരണങ്ങളെ പരിചയപ്പെടുകയും വിലയിരുത്തുകയും വർഗ്ഗീകരിക്കുകയും ചെയ്യുന്നു
			CO4	നാടോടിജീവിതത്തെക്കുറിച്ചുള്ള സാമാന്യധാരണ ആർജ്ജിക്കുന്നു
6	MAL6B 11	ഭാഷാശാസ്ത്രവും ഭാഷാചരിത്രവും	CO1	ഭാഷാശാസ്ത്രം എന്ന വിജ്ഞാനശാഖയെ പരിചയപ്പെടുന്നു
			CO2	ഭാഷാശാസ്ത്രത്തിലെ അടിസ്ഥാന സങ്കല്പങ്ങളെ പരിചയപ്പെടുന്നു
			CO3	സാമൂഹികഭാഷാശാസ്ത്രം, സാമൂഹികഭാഷാശാസ്ത്രം എന്നീ ഉപശാഖകളെക്കുറിച്ചുള്ള അറിവ് നേടുന്നു
			CO4	ഭാഷയുടെ വർത്തമാനപ്രയോഗമേഖലകളെക്കുറിച്ചുള്ള സാമാന്യമായ അറിവ്

				നേടുന്നു
	MAL6B12	ഗദ്യസാഹിത്യം	CO1	ഭാഷാഗദ്യത്തിന്റെ പ്രാരംഭചരിത്രത്തെക്കുറിച്ചുള്ള വസ്തുനിഷ്ഠമായ അറിവ്
			CO2	ഭാഷാഗദ്യത്തിന്റെ വികാസത്തിൽ വൈദേശികസ്വാധീനം വിശകലനം ചെയ്യാനുള്ള ശേഷി
			CO3	മലയാളഗദ്യത്തിന്റെ ആധുനികീകരണത്തിൽ ഇടപെട്ട ഘടകങ്ങളെ വിമർശനാത്മകമായി വിലയിരുത്താനുള്ള ശേഷി
			CO4	മലയാളഗദ്യത്തിന്റെ വർത്തമാനസാധ്യതകൾ തിരിച്ചറിയുന്നു
	MAL6B13	പൗരസ്ത്യസിദ്ധാന്തങ്ങൾ	CO1	പൗരസ്ത്യകാവ്യശാസ്ത്രത്തിലെ അടിസ്ഥാനസങ്കല്പങ്ങളെ പരിചയപ്പെടുന്നു
			CO2	ഭാരതീയകാവ്യശാസ്ത്രത്തിന്റെ വർത്തമാനപ്രസക്തി വിലയിരുത്താനുള്ള ശേഷി
			CO3	മലയാളത്തിലെ പ്രധാനവൃത്തങ്ങളെ തിരിച്ചറിയാനുള്ള ശേഷി
			CO4	മലയാളത്തിലെ പ്രധാന അലങ്കാരങ്ങളെ തിരിച്ചറിയാനുള്ള ശേഷി
	MAL6B14	നവസംസ്കാരപഠനങ്ങൾ	CO1	സംസ്കാരപഠനം എന്ന വിജ്ഞാനശാഖയുടെ വികാസവും പരിണാമവും അതിന്റെ ഘടകങ്ങളെയും വിലയിരുത്താനുള്ള ശേഷി
			CO2	സംസ്കാരവും പരിസ്ഥിതിയും തമ്മിലുള്ള പാരസ്പര്യത്തെ വിലയിരുത്താനുള്ള ശേഷി
			CO3	സ്ത്രീവാദത്തിന്റെ വികാസവും പരിണാമവും

				വിമർശനാത്മകമായി വിലയിരുത്താനുള്ള ശേഷി
			CO4	സംസ്കാരവും രാഷ്ട്രീയവും തമ്മിലുള്ള ബന്ധത്തെ വിലയിരുത്താനുള്ള ശേഷി
	MAL6B 19	സൈബർ മലയാളം	CO1	വിവരസാങ്കേതികവിദ്യയുടെയും ഭാഷാസാങ്കേതികവിദ്യയുടെയും അടിസ്ഥാനസങ്കല്പങ്ങൾ പരിചയപ്പെടുന്നു
			CO2	ഭാഷാസാങ്കേതികവിദ്യയുടെ വർത്തമാനസാധ്യതകൾ വിലയിരുത്തുന്നു
			CO3	മലയാളത്തിലെ സൈബർസാഹിത്യത്തെ വിമർശനാത്മകമായി വിലയിരുത്തുന്നു

Name of the Programme

BA Malayalam Complimentary Course

Semester:	Course code	Title	CO No.	Course Outcomes
1	MAL1 (2) C01	കേരളപഠനം - പുർവ്വകാലം, മധ്യകാലം	CO1	കേരളസംസ്കാരം - പഠനപദ്ധതിയുടെ അടിസ്ഥാന സങ്കല്പനങ്ങൾ മനസ്സിലാക്കുന്നു
			CO2	സംഘകാലജീവിതവും സാഹചര്യങ്ങളും മനസ്സിലാക്കുന്നു
			CO3	വിവിധ മതങ്ങൾ കേരളീയജീവിതത്തിൽ ഇടപെട്ടതെങ്ങനെയെന്ന് വിശകലനം ചെയ്യുന്നു
			CO4	ബ്രാഹ്മണാധിപത്യത്തിന്റെ അനന്തരഫലങ്ങൾ കേരളീയജീവിതത്തിൽ ഇടപെട്ടതെങ്ങനെയെന്ന് വിശകലനം ചെയ്യുന്നു.
4	MAL 4(3)	കേരളപഠനം - അധിനിവേശകാ	CO1	പാശ്ചാത്യ അധിനിവേശം കേരളത്തിന്റെ രാഷ്ട്രീയ-

	C02	ലം, ആധുനികകാലം		സാമൂഹ്യജീവിതത്തെ രൂപീകരിച്ചത് എങ്ങനെയെന്ന് തിരിച്ചറിയുന്നു
			CO2	കേരളത്തിന്റെ കലാസാംസ്കാരികജീവിതത്തിൽ രാഷ്ട്രീയ അധിനിവേശം ഇടപെട്ടതെങ്ങനെയെന്ന് വിലയിരുത്തുന്നു.
			CO3	സാമൂഹ്യപരിഷ്കരണപ്രസ്ഥാനങ്ങ ൾ കേരളീയ ജീവിതത്തിൽ ഇടപെട്ടതെങ്ങനെയെന്ന് വിശകലനം ചെയ്യുന്നു
			CO4	ആധുനികാനന്തരകേരളീയജീവി തവും സംസ്കാരവും വിലയിരുത്തുന്നു
		BA / BSc / BSW Common Course Malayalam		
Semester:	Course code	Title	CO No.	Course Outcomes
1			CO1	മലയാള കവിതാ സാഹിത്യത്തിന്റെയും കഥാ സാഹിത്യത്തിന്റെയും വളർച്ച, വികാസഘട്ടങ്ങൾ വിലയിരുത്തുന്നു
			CO2	പ്രാചീനകവിത്രയത്തെ പരിചയപ്പെട്ട് അവരുടെ പ്രാധന കൃതികളും രചനാ സവിശേഷതകളും വിശകലനം ചെയ്യുന്നു.
			CO3	ഇതിഹാസ കൃതികളെ പരിചയപ്പെട്ട് വിമർശനാത്മകമായി വിലയിരുത്തുന്നു
			CO4	നാടൻപാട്ട് , മാപ്പിളപ്പാട്ട്, വീരകഥാഗാനങ്ങൾ എന്നിവയിലൂടെ ആവിഷ്കൃതമായ ജീവിതമൂല്യങ്ങൾ താരതമ്യം
	MAL1A07(1)	മലയാളസാഹി ത്യം 1		

				ചെയ്യുന്നു.
2	MAL2A08(1)	മലയാളസാഹിത്യം 2	CO1	മലയാളകവിതയിലെ കാല്പനികഘട്ടത്തെ മനസ്സിലാക്കുന്നു
			CO2	മലയാളകവിതയിലെ ആധുനികഘട്ടത്തിലെ ഭാവുകത്വപരിണാമത്തെ മനസ്സിലാക്കുന്നു
			CO3	മലയാളസാഹിത്യവിമർശനത്തിലെ ആധുനികകാലത്തെക്കുറിച്ചുള്ള അടിസ്ഥാനധാരണ നേടുന്നു
			CO4	മലയാളസാഹിത്യവിമർശനത്തിലെ ഉത്തരാധുനികകാലത്തെ വിശകലനം ചെയ്യുന്നു
4	MAL4A10	മലയാളസാഹിത്യം 4	CO1	നാടകം - സാമാന്യധാരണ നേടുന്നു
			CO2	തിരക്കഥ - സിനിമയും സാഹിത്യവും തമ്മിലുള്ള ബന്ധത്തെക്കുറിച്ചുള്ള സാമാന്യധാരണ നേടുന്നു
			CO3	ആത്മകഥ/ജീവചരിത്രം - എഴുത്ത് ജീവിതം സമൂഹം എന്നിവ തമ്മിലുള്ള പാരസ്പര്യത്തെ വിശകലനം ചെയ്യുന്നു
			CO4	സഞ്ചാരസാഹിത്യശാഖയെക്കുറിച്ചുള്ള സാമാന്യധാരണ നേടുന്നു
			CO1	ഭാഷയും ആശയവിനിമയവും പ്രയോഗസാധ്യതകൾ
			CO2	വിവർത്തനം - സിദ്ധാന്തവും പ്രയോഗവും
			CO3	കേരളത്തിന്റെ സാംസ്കാരിക ചരിത്രത്തിലെ സവിശേഷതകൾ വിശകലനം ചെയ്യുന്നു
			CO4	നോവൽ - സാഹിത്യവും ജീവിതാനുഭവങ്ങളും വിശകലനം

				ചെയ്യുന്നു
		B.Com Common Course Malayalam		
Semester	Course code	Title	CO No.	Course Outcomes
1	MAL1A 07 (2)	മലയാളസാഹിത്യപഠനം 1	CO 1	മലയാളത്തിലെ നിരൂപണസാഹിത്യത്തെ സാമാന്യമായി പരിചയപ്പെടുന്നു
			CO2	മലയാളത്തിലെ കഥാസാഹിത്യത്തെ സാമാന്യമായി പരിചയപ്പെടുന്നു
			CO3	മലയാളത്തിലെ നോവൽ സാഹിത്യത്തെ സാമാന്യമായി പരിചയപ്പെടുന്നു
			CO4	മലയാളത്തിലെ യാത്രാവിവരണ സാഹിത്യത്തെ സാമാന്യമായി പരിചയപ്പെടുന്നു
2	MAL2A 08 (2)	മലയാളസാഹിത്യപഠനം 2	CO1	മലയാളത്തിലെ ആധുനിക കവിതാസാഹിത്യത്തെ സാമാന്യമായി പരിചയപ്പെടുന്നു
			CO2	മലയാളത്തിലെ ആധുനിക കഥാസാഹിത്യത്തെ സാമാന്യമായി പരിചയപ്പെടുന്നു
			CO3	മലയാളത്തിലെ നാടകസാഹിത്യത്തെ സാമാന്യമായി പരിചയപ്പെടുന്നു
			CO4	മലയാളത്തിലെ ആത്മകഥാസാഹിത്യത്തെ സാമാന്യമായി പരിചയപ്പെടുന്നു
		Other Pattern Malayalam		
Semester	Course code	Title	CO No.	Course Outcomes
1	MAL1A 07 (3)	മലയാളഭാഷയും സാഹിത്യവും 1	CO 1	മലയാളത്തിലെ ലേഖനസാഹിത്യത്തെക്കുറിച്ചുള്ള സാമാന്യധാരണ നേടുന്നു

			CO2	മലയാളത്തിലെ കഥാസാഹിത്യത്തെ സാമാന്യമായി പരിചയപ്പെടുന്നു
			CO3	മലയാളത്തിലെ സഞ്ചാരസാഹിത്യത്തെ സാമാന്യമായി പരിചയപ്പെടുന്നു
			CO4	മലയാളത്തിലെ ആധുനിക കവിതാസാഹിത്യത്തെ സാമാന്യമായി പരിചയപ്പെടുന്നു
2	MAL2A 08 (3)	മലയാളഭാഷയും സാഹിത്യവും 2	CO1	മലയാളത്തിലെ ആധുനിക കഥാസാഹിത്യത്തെ സാമാന്യമായി പരിചയപ്പെടുന്നു
			CO2	മലയാളത്തിലെ നോവൽ സാഹിത്യത്തെ സാമാന്യമായി പരിചയപ്പെടുന്നു
			CO3	മലയാളത്തിലെ നാടകസാഹിത്യത്തെ സാമാന്യമായി പരിചയപ്പെടുന്നു
			CO4	മലയാളത്തിലെ ആത്മകഥാസാഹിത്യത്തെ സാമാന്യമായി പരിചയപ്പെടുന്നു
Name of Programme			Common Course Hindi	
Short Name of the Programme			Common Course Hindi	
Code of the Programme			CCAHNI	
1	HNI 1 A07 (1)	PROSE AND DRAMA	CO1	Make the student to the aesthetic and cultural aspects of literary appreciation.
			CO2	Practice of Hindi can easily acquire wide knowledge and allow them to be effective in their interpretations.
			CO3	Carryout the origin of Hindi Prose, Drama and its literature.
			CO4	Prepare their mental growth, health and increase thinking ability.
			CO5	Adapt to create script writing.
2	HNI 2 A08	GRAMMAR AND	CO1	Make Hindi Translation to improve their translation skill and helps to get a secured

	(2)	TRANSLATION		job.
			CO2	Prepare them to effective communication between people around the world.
			CO3	Determine the scientific form of Hindi grammar and the correct usage of Hindi language.
			CO4	Implement communicative skills in Hindi.
			CO5	Develop the ability to use proper language in Script writing and advertisement.
3	HNI 3 A09	POETRY IN HINDI	CO1	Provide Hindi Poetry to learn the human values and current affairs in day-to-day life.
			CO2	Asses the traditional, social, cultural forms of poetry.
			CO3	Monitor the basic terminology and practical elements of poetry.
			CO4	Set up the emotions and enhances their power of imagination.
			CO5	Develop the creativity and aesthetic sense.
4	HNI 4 A 10	NOVEL AND SHORT STORIES	CO1	Make Hindi literature helps to build the skills of creativity and intellectual ideas.
			CO2	Develop the capacity of empathy and understand the minds and emotions of others.
			CO3	Carryout Hindi literature helps to career options and capability of the language to further generations.
			CO4	Analyze historical, social, economic and personal emotions and events.
			CO5	Provide the opportunities for better career options in Hindi language.
COMMON COURSE HINDI -B. com/B.B.A				
Semester:	Course code	Title	CO No.	Course Outcomes
1	HNI 1 A 07 (2)	PROSE FORMS IN HINDI LITERATURE	CO1	Carry out the important authors of Hindi Literature.
			CO2	Create their active and passive vocabulary.
			CO3	Rate their evaluation capacity and reading.

			CO4	Practice of Hindi language help to express and improve the ability to read works of literary, historical and cultural criticism.
			CO5	Formulate the literal and figurative use of language.
2	HNI 2A 08(2)	POETRY, CORRESPONDENCE AND TRANSLATION	CO1	Analyze the narrative and poetic language which helps in applying technical terms.
			CO2	Assess the Rhythms, Metrics and other musical aspects of poetry.
			CO3	Carryout the importance and fundamental aspects of correspondence.
			CO4	Apply ethical communication practice.
			CO5	Provide translation studies to improve translation skills.

COMMON COURSE HINDI -L.R. P (B.SC COMPUTER SCIENCE, B.C. A, B. Sc FT, B.VOC IT/FP)

Semester:	Course code	Title	CO No.	Course Outcomes
1	HNI 1A 07(3)	PROSE AND ONE ACT PLAYS	CO1	Categorize the cultural aspects of India, mythology and secularism.
			CO2	Create an interest in literature and increase the critical attitude.
			CO3	Distinguish the various forms of prose.
			CO4	Categorize the values of rituals and customs
			CO5	Role play helps the students to improve their communicative skills in Hindi and self-confidence.
2	HNI 2A 08(3)	POETRY AND SHORT STORIES	CO1	Carry out the national, social and cultural environment as described in the Poetry by ancient and modern Hindi Poets.
			CO2	Assess personal experience that can be used when writing poems.
			CO3	Distinguish the modern trends of our society and Indian culture.
			CO4	Provide the Hindi literature to build the skills of creative and intellectual ideas and makes them to enrich their career.
			CO5	Prioritize various aspects of life through the medium of story, develop the creativity of

				storytelling and writing.
Name of the Programme			Common Course Sanskrit	
Short Name of the Programme			Common Course Sanskrit	
Code of the Programme				
Common course, Sanskrit: BA/B.Sc. Programme				
Semester	Course code	Title	CO No.	Course Outcomes
1	CC21USKT1 A 07(01)	SAMSKRTASAHITYA SAMIKSHA-I (KAVYA LITERATURE AND APPLIED GRAMMAR)	CO1	Make the general awareness of Sanskrit poetic literature
			CO2	Examine the attributes of Kalidasa literature
			CO3	Critical thinking on Modern and Ancient literature
			CO4	Apply moral-values and manage life situations through the use of Subhashitas
			CO5	Perceive the basic grammar
2	CC21USKT2 A 08(01)	SAMSKRTASAHITYA SAMIKSHA-II (PROSE AND APPLIED GRAMMAR)	CO1	Make the general awareness of Sanskrit Prose style.
			CO2	Examine different types of Sanskrit Prose literature.
			CO3	Analyzing the purpose of Sanskrit study.
			CO4	Develop a better life with the help of Panchatantra stories.
			CO5	Adapt Fluency and ability to read and write in Sanskrit through the knowledge of basic grammar
3	CC21USKT3 A 09(01)	SAMSKRTASAHITYA SAMIKSHA-III (DRAMA AND ALANKARA)	CO1	Understand the Dramatical traits of Sanskrit literature.
			CO2	Critical study of Indian and Western Dramas.
			CO3	Peculiarities of Bhasa.
			CO4	Attain the ability to appreciate classical literature.
			CO5	Develop aesthetic, cultural values and promote life.
4	CC21USKT4 A 10(01)	SAMSKRTASAHITYA SAMIKSHA-IV (HISTORY OF SANSKRIT LITERATURE, KERALA CULTURE AND TRANSLATION)	CO1	Perusal of Sanskrit classical literature.
			CO2	Probe deep into Keralite Sanskrit Scholars.
			CO3	Familiarize with performing arts of Kerala
			CO4	Ability to translate Sanskrit language.
			CO5	Fluency and ability to read and write in Sanskrit.
5	CC21USKT5	OPEN COURSE	CO1	Familiarize Sanskrit language.

	D (01)	- MANAGEMENT PRINCIPLES IN SANSKRIT	CO2	Re-reading Bhagavadgita third chapter in a management way.
			CO3	Attain and develop Leadership quality.
			CO4	Awareness on socio-cultural community.

Common course, Sanskrit: B. Com Programme

Semester:	Course code	Title	CO No.	Course Outcomes
1	CC21USKT1 A 07(02)	SAMSKRTASAHITYA DHYAYANAM-I (PROSE, SUBHASHITAS AND BASIC GRAMMAR)	CO1	Make the general awareness of Sanskrit Prose style.
			CO2	Examine different types of Sanskrit Prose literature.
			CO3	Analyzing the purpose of Sanskrit study.
			CO4	Develop a better life with the help of Panchatantra stories.
			CO5	Adapt Fluency and ability to read and write in Sanskrit through the knowledge of basic grammar
2	CC21USKT2 A 08(02)	SAMSKRTASAHITYA SAMIKSHA-II (ANCIENT STATE CRAFT AND TRANSLATION)	CO1	Conceptualize the ancient trade system.
			CO2	Analyzing text Bhagavadgita which helps to maintain stability of mind and teaches the role of management techniques.
			CO3	Attain translational techniques.
			CO4	Fluency and ability to read and write in Sanskrit.
			CO5	Attain and develop the quality of work life

Name of Programme

Common course French

Short Name of the Programme

Common course French

Code of the Programme

CCAFRE

Semester	Course code	Title	CO No.	Course Outcomes
1	FRE1A07 (1) / FRE1A07(2)	COMMUNICATIVE SKILLS IN FRENCH	CO 1	Create simple conversations to introduce people and answer questions about personal details.
			CO 2	Construct basic and simple sentences by applying language, vocabulary and grammar skills.

2			CO 3	Articulate and categorize basic speech sounds and their determined combinations
			CO 4	Identify basic differences and similarities related to the civilization of francophone countries and India.
			CO 5	Write simple letters, postcards and descriptions.
	FRE1A07 (3)	COMMUNICATIVE SKILLS IN FRENCH	CO 1	Prepare conversations for minimal and simple exchanges with a French speaking clientele in the Hotel Management field.
			CO 2	Apply basic grammar and vocabulary for verbal (oral) understanding and expression.
			CO 3	Recognize basic facts relating to the habitude of French to meet a few clientele expectations.
			CO 4	Use simple phrases and sentences to explain to a French speaking person basic fact about Indian culture like food, places, timings and directions.
			CO 5	Write simple descriptions and paragraphs in French relating to everyday life situations.
	FRE2A08 (1)	TRANSLATION AND COMMUNICATION IN FRENCH	CO 1	Translate words, sentences and paragraphs.
			CO 2	Develop language, vocabulary and grammar skills.
			CO 3	Analyze French civilization.
			CO 4	Describe French cuisines.
			CO 5	Use simple phrases and sentences to explain about time, date, currency and population.
	FRE2A08 (2)	TRANSLATION AND COMMUNICATION IN FRENCH	CO 1	Write business letters obeying rules of presentation and structure.
			CO 2	Translate key words and sentences related to companies.
			CO 3	Explain aspects such as letter handling and postal services in France.
			CO 4	Explain the way French companies are classified and the hierarchical structure followed in the business world.
			CO 5	Translate different types of business letters.
	FRE2A08 (3)	TRANSLATION AND	CO 1	Prepare conversations to communicate

		COMMUNICATION IN FRENCH		effectively in a professional context
			CO 2	Apply advanced grammar and vocabulary for oral understanding and expression.
			CO 3	Compare the culture of home country with that of France like mode of transportation, daily lifestyle.
			CO 4	Discuss the needs and demands of potential French clients in the context of tourism.
			CO 5	Practice exercises that deal with Communicative situations relevant to different South Asian contexts
3	FRE3A09	LITERATURE IN FRENCH	CO 1	Interpret French poems inspired from everyday life, name key authors and works.
			CO 2	Write small poems using elementary vocabulary and short notes on a few French movies.
			CO 3	Write short paragraphs using vocabulary and grammar skills.
			CO 4	Describe briefly personal experiences, places, daily activities and memories.
			CO 5	Briefly explain a few similarities and differences between culture of France and native country.
4	FRE4A10	CULTURE AND CIVILIZATION OF FRANCE	CO 1	Make simple sentences for daily conversations and routine tasks.
			CO 2	Write short paragraphs by applying language, vocabulary and grammar skills.
			CO 3	Explain specific topics related to Kerala such as tourism, cuisine, education, transportation, and festivals.
			CO 4	Summarize specific topics related to France such as tourism, cuisine, education, regions, and festivals.
			CO 5	Compare civilization of Kerala and France.
Name of the Programme			Bachelor of science Geology	
Short Name of the Programme			B.Sc. Geology (Aided)	
Code of the Programme			CCAGEO	
Semester	Course code	Title	CO No.	Course Outcomes

1	GEO1B01	ESSENTIALS OF GEOLOGY	CO1	Justify the presence of various layers in the interior of the Earth.
			CO2	Examine the origin, types, distribution, and effects of earthquake, volcanoes, and mass wasting.
			CO3	Compare various dating methods for determining the age of Earth materials.
			CO4	Describe the elementary concepts on crystals, minerals, and rocks.
			CO5	Distinguish various morphological features of ocean floor and coastal region resulting from geological processes.
2	GEO2B03	DYNAMIC GEOLOGY & GEOINFORMATICS	CO1	Assess the various exogenous process in molding the earth's surface.
			CO2	Contrast different landforms based on their genesis.
			CO3	Describe the basic concepts on the distribution and occurrence of groundwater.
			CO4	Distinguish the basics of GIS and Remote sensing.
			CO5	Application of GIS in geosciences.
3	GEO3B05	CRYSTALLOGRAPHY AND MINERALOGY	CO1	Differentiate crystals forms under different systems.
			CO2	Compare the symmetry elements of crystals of different systems.
			CO3	Compare various twin types and laws in minerals.
			CO4	Group minerals based on its physical properties.
			CO5	Rank the crystals in to various systems based on their symmetry elements.
4	GEO4B07	OPTICAL AND DESCRIPTIVE MINERALOGY	CO1	Examine the optical properties of minerals under petrological microscope.
			CO2	Distinguish minerals based on their optical and physical properties.
			CO3	Assess the properties of different silicate minerals based on their structure and composition.
			CO4	Differentiate minerals based on their

5				industrial uses.
			CO5	Discuss various optical accessories and their uses.
	GEO5B09	STRUCTURAL GEOLOGY AND GEOTECTONICS	CO1	Assess various geological features in a topographic map.
			CO2	Construct the deformation history based on geological structures.
			CO3	Categorize different geological structures based on its attitude and geometry
			CO4	Compare different layers of earth based on their geophysical and petrochemical characteristics.
			CO5	Compare various geological features associated with different plate margins.
	GEO5B10	STRATIGRAPHY AND SEDIMENTOLOGY	CO1	Distinguish stratigraphic laws and different criteria of correlation.
			CO2	Compare and contrast various sedimentary rocks and deposits.
			CO3	Construct the depositional environment of rocks using sedimentary structure and textures.
			CO4	Distinguish different types of stratigraphic classification and their units.
			CO5	Deduce different processes of sedimentary rock formation using mineralogy and fabric.
	GEO5B11	IGNEOUS PETROLOGY	CO1	Compare and contrast different igneous forms.
			CO2	Construct the rock formation processes/conditions using different structures and textures present in igneous rocks.
			CO3	Categorize different igneous rocks based on various criteria.
			CO4	Formulate the sequence of crystallization of different binary magma using experimental phase diagrams.
			CO5	Assess various magmatic processes in the diversification of igneous rock.
	GEO5B12	METAMORPHIC	CO1	Compile the types of metamorphism, agents of metamorphism and geological setting with

6		PETROLOGY		respect to the types of rocks.
			CO2	Group foliated and non-foliated metamorphic rocks with respect to its textures and structures.
			CO3	Categorize different metamorphic rocks with respect to pressure
			CO4	What if the effects of metamorphism on different types of protoliths
			CO5	Differentiate metamorphism, metasomatism and anatexis.
	GEO6B17	PALAEONTOLOGY	CO1	Asses the stratigraphic distribution of various invertebrate fossils.
			CO2	Differentiate various modes of preservation and uses of fossils.
			CO3	Distinguish invertebrate fossils of various phylum.
			CO4	Describe the plant fossils in India and Siwalik vertebrate fossils.
			CO5	Asses the application of fossils in characterizing the paleoenvironment.
	GEO6B18	INDIAN GEOLOGY	CO1	Assess various geologic formations of India, based on their lithology and economic mineral deposits.
			CO2	Categorize various stratigraphic formations of India based on their spatial distribution.
			CO3	Integrate the lithostratigraphic sequences with tectonic evolution of Indian Sub-Continent.
			CO4	Assess the various stratigraphic sequences in India based on their age.
			CO5	Construct various geological events took place during Cenozoic era in India.
	GEO6B19	ECONOMIC GEOLOGY	CO1	Describe the basic concepts in economic geology.
			CO2	Distinguish different ore forming processes.
			CO3	Integrate the spatial and temporal occurrence of metalliferous and nonmetalliferous deposits of India.
			CO4	Distinguish the origin and occurrence of coal

				and petroleum.
			CO5	Discuss ore deposit localization.
4	GEO4B08(P)	CRYSTALLOGRAPHY , MINERALOGY & GEOINFORMATICS	CO1	Categorize crystals based on their symmetry elements and forms.
			CO2	Distinguish different types of twinning and twin laws.
			CO3	Categorize various minerals using their atomic structure and physical properties.
			CO4	Distinguish different minerals based on their physical and optical properties.
			CO5	Practice concept of GIS in spatial data analysis.
6	GEO6B20(P)	STRUCTURAL AND ECONOMIC GEOLOGY	CO1	Construct the sequence of geologic events in the area from geological maps.
			CO2	Assess the attitude of formation using construction and calculation methods.
			CO3	Construct the orientation of the geological strata using rule of V.
			CO4	Distinguish different ore mineral using their physical properties.
			CO5	Describe the uses and application of different economic minerals.
	GEO6B21(P)	PETROLOGY AND PALAEONTOLOGY	CO1	Differentiate different rocks in hand specimen and thin section.
			CO2	Assess the process of formation of different rocks using their structure and texture.
			CO3	Rank various metamorphic rocks using their mineralogy and texture.
			CO4	Distinguish various invertebrate and plant fossils.
			CO5	Rank various fossils based on their age.
	GL6B22(E01)	ENVIRONMENTAL GEOLOGY	CO1	Validate the impact of anthropogenic activity on environment.
			CO2	Assess the role of human activities in mass wasting and earthquake hazard.
			CO3	Categorize different types of water pollution.
			CO4	Describe the fundamental concepts of environmental geology.

			CO5	Compare different global energy scenarios.
5	GEO05D01	UNDERSTANDING THE EARTH	CO1	Compare different layers of earth and different seismic discontinuities.
			CO2	Compare the different landforms associated with tectonic boundaries.
			CO3	Illustration of ocean topography.
			CO4	Assess the cause and distribution of landslide and earthquake.
			CO5	Describe the process of soil formation from different rock types.
6	GEO6B23	PROJECT WORK	CO1	Review available literature.
			CO2	Identify a valid problem and methodology.
			CO3	Generate field and lab data.
			CO4	Compile the data generated and arrive at meaningful conclusion.
			CO5	Assess the relevance of the conclusion / possible solution.
	GEO6B24	STUDY TOUR	CO1	Practice different geological instrument and field techniques.
			CO2	Categorize the different minerals, rocks, fossils and geological structures in the field.
			CO3	Generate field data and geologic map of a given transect.
			CO4	Compile the data collected from the field and make meaningful conclusion.
			CO5	Prepare a field report based on the all the above.
Name of the Programme			Bachelor of science Geology	
Short Name of the Programme			B.Sc. Geology (Unaided)	
Code of the Programme			CCAGEO	
Semester	Course code	Title	CO No.	Course Outcomes
1	GEO1B01	ESSENTIALS OF GEOLOGY	CO1	Justify the presence of various layers in the interior of the Earth
			CO2	Examine the origin, types, distribution, and effects of earthquake, volcanoes, and mass

				wasting
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			CO4	Describe the elementary concepts on crystals, minerals, and rocks
			CO5	Distinguish various morphological features of ocean floor and coastal region resulting from geological processes
2	GEO2B03	DYNAMIC GEOLOGY & GEOINFORMATICS	CO1	Assess the various exogenous process in molding the earth's surface
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			CO3	Describe the basic concepts on the distribution and occurrence of groundwater
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			CO5	Application of GIS in geosciences
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			CO2	Compare the symmetry elements of crystals of different systems
			CO3	Compare various twin types and laws in minerals
			CO4	Group minerals based on its physical properties
			CO5	Rank the crystals in to various systems based on their symmetry elements
4	GEO4B07	OPTICAL AND DESCRIPTIVE MINERALOGY	CO1	Examine the optical properties of minerals under petrological microscope
			CO2	Distinguish minerals based on their optical and physical properties
			CO3	Assess the properties of different silicate minerals based on their structure and composition
			CO4	Differentiate minerals based on their industrial uses
			CO5	Discuss various optical accessories and their uses

5	GEO5B09	STRUCTURAL GEOLOGY AND GEOTECTONICS	CO1	Assess various geological features in a topographic map.
			CO2	Construct the deformation history based on geological structures.
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			CO4	Compare different layers of earth based on their geophysical and petrochemical characteristics.
			CO5	Compare various geological features associated with different plate margins.
	GEO5B10	STRATIGRAPHY AND SEDIMENTOLOGY	CO1	Distinguish stratigraphic laws and different criteria of correlation
			CO2	Compare and contrast various sedimentary rocks and deposits
			CO3	Construct the depositional environment of rocks using sedimentary structure and textures
			CO4	Distinguish different types of stratigraphic classification and their units
			CO5	Deduce different processes of sedimentary rock formation using mineralogy and fabric
	GEO5B11	IGNEOUS PETROLOGY	CO1	Compare and contrast different igneous forms
			CO2	Construct the rock formation processes/conditions using different structures and textures present in igneous rocks
			CO3	Categorize different igneous rocks based on various criteria.
			CO4	Formulate the sequence of crystallization of different binary magma using experimental phase diagrams
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	GEO5B12	METAMORPHIC PETROLOGY	CO1	Compile the types of metamorphism, agents of metamorphism and geological setting with respect to the types of rocks
			CO2	Group foliated and non-foliated metamorphic rocks with respect to its textures and

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			CO3	Categorize different metamorphic rocks with respect to pressure
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	GEO6B17	PALAEONTOLOGY	CO1	Assess the stratigraphic distribution of various invertebrate fossils
			CO2	Differentiate various modes of preservation and uses of fossils
			CO3	Distinguish invertebrate fossils of various phylum
			CO4	Describe the plant fossils in India and Siwalik vertebrate fossils
			CO5	Assess the application of fossils in characterizing the paleoenvironment
	GEO6B18	INDIAN GEOLOGY	CO1	Assess various geologic formations of India, based on their lithology and economic mineral deposits
			CO2	Categorize various stratigraphic formations of India based on their spatial distribution
			CO3	Integrate the lithostratigraphic sequences with tectonic evolution of Indian Sub-Continent.
			CO4	Assess the various stratigraphic sequences in India based on their age
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	GEO6B19	ECONOMIC GEOLOGY	CO1	Describe the basic concepts in economic geology
			CO2	Distinguish different ore forming processes
			CO3	Integrate the spatial and temporal occurrence of metalliferous and nonmetalliferous deposits of India
			CO4	Distinguish the origin and occurrence of coal and petroleum
			CO5	Discuss ore deposit localization

4	GEO4B08(P)	CRYSTALLOGRAPHY , MINERALOGY & GEOINFORMATICS	CO1	Categorize crystals based on their symmetry elements and forms
			CO2	Distinguish different types of twinning and twin laws
			CO3	Categorize various minerals using their atomic structure and physical properties
			CO4	Distinguish different minerals based on their physical and optical properties
			CO5	Practice concept of GIS in spatial data analysis
6	GEO6B20(P)	STRUCTURAL AND ECONOMIC GEOLOGY	CO1	Construct the sequence of geologic events in the area from geological maps
			CO2	Assess the attitude of formation using construction and calculation methods
			CO3	Construct the orientation of the geological strata using rule of V
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	GEO6B21(P)	PETROLOGY AND PALAEONTOLOGY	CO1	Differentiate different rocks in hand specimen and thin section
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			CO5	Rank various fossils based on their age
	GL6B22(E01)	ENVIRONMENTAL GEOLOGY	CO1	Validate the impact of anthropogenic activity on environment
			CO2	Assess the role of human activities in mass wasting and earthquake hazard
			CO3	Categorize different types of water pollution
			CO4	Describe the fundamental concepts of environmental geology
			CO5	Compare different global energy scenarios
5	GEO5D03	GROUND WATER	CO1	Describe the inter relation between different

		EXPLORATION AND MANAGEMENT		forms of water on earth
			CO2	Categorize various geological formation based on the occurrence of groundwater
			CO3	Asses the availability of groundwater in an area using geological and geophysical methods
			CO4	Analyze the quality of water and possible pollutions
			CO5	Implement various methods of overall groundwater management with proper knowledge on harvest and recharge techniques.
6	GEO6B23	PROJECT WORK	CO1	Review available literature
			CO2	Identify a valid problem and methodology
			CO3	Generate field and lab data
			CO4	Compile the data generated and arrive at meaningful conclusion
			CO5	Assess the relevance of the conclusion possible solution.
	GEO6B24	STUDY TOUR	CO1	Practice different geological instrument and field techniques.
			CO2	Categorize the different minerals, rocks, fossils and geological structures in the field
			CO3	Generate field data and geologic map of a given transect.
			CO4	Compile the data collected from the field and make meaningful conclusion.
			CO5	Prepare a field report based on the all the above.
Name of the Programme			Bachelor of Science, Library Science	
Short Name of the Programme			B. Lib.Sci	
Code of the Programme			CCABLS	
Year	Course code	Title	CO No.	Course Outcomes
1	BLIS 01	LIBRARY, INFORMATION AND SOCIETY	C01	Comprehend the concept of information and the discipline of Library and Information Science.

			C02	Understand the development of libraries.
			C03	Classify libraries on the basis of their purpose and functions.
			C04	Know the role of libraries in the development of various aspects of society.
			C05	Comprehend the basic philosophy and laws of Library and Information Science.
	BLIS 02	MANAGEMENT OF LIBRARIES AND INFORMATION CENTRES	C06	Understand librarianship as a profession.
			C01	Understand the concept and history of management.
			C02	Elaborate principles and functions of management.
			C03	Carry out various operations of Library and Information Centers.
			C04	Manage, preserve, and provide access to various print and non-print information sources.
			C05	Comprehend the concept of financial management and human resource management.
	BLIS 03	INFORMATION SOURCES, SYSTEMS AND SERVICES	CO6	Maintain the library statistics and prepare annual report.
			C01	Understand, identify, and explore the different types of information sources.
			C02	Evaluate various types of information sources.
			C03	Explore, collate, and facilitate access to the electronic resources, such as e journals, e-books, databases, and institutional repositories.
			C04	Provide library services using sources such as blogs, portals, wikies, subject gateways, digital libraries.
			C05	Understand the concept of library resource sharing and consortia.
	BLIS 04	INFORMATION TECHNOLOGY	CO6	Comprehend the nature and functions of various information systems and networks.
			C01	Understand the structure of computer and functions of its various units.

		THEORY	C02	Plan and implement automation in library housekeeping operations and services.
			C03	Identify and state the features of telecommunication channels, modes, media, modulation, standards and protocols.
			C04	Highlight the nature and components of computer networks and their protocols and standards.
			C05	Examine the concept of library networks and highlight their types and importance.
	BLIS 05	KNOWLEDGE ORGANIZATION – LIBRARY CLASSIFICATION THEORY	C01	Explain the nature and attributes of universe of knowledge.
			C02	Elaborate meaning and types of subjects and modes of subject formation.
			C03	Illustrate knowledge as mapped in different classification schemes.
			C04	Express the meaning, purpose, functions, theories, and canons of library classification.
			C05	Discuss the characteristics, merits, and demerits of different species of library classification schemes.
			CO6	Highlight salient features of major classification schemes. Review current trends in library classification
	BLIS 06	KNOWLEDGE ORGANIZATION – LIBRARY CATALOGUING THEORY	C01	Understand the concept of library catalogue.
			C02	Comprehend various inner and outer forms of library catalogue.
			CO3	Understand the main and added entries of library catalogue.
			CO4	Understand various approaches of deriving subject headings.
			CO5	Understand the concept of co-operative and centralized cataloguing.
			CO6	Know the standards for bibliographic interchange and communication.
	BLIS 07	KNOWLEDGE ORGANIZATION – LIBRARY CLASSIFICATION	C01	Construct class numbers for documents with simple, compound and complex Subjects.
			C02	Synthesize class numbers by using the standard subdivisions/common

		PRACTICE		isolates/auxiliary tables.
			CO3	Compile book numbers and be able to use index of the classification scheme.
	BLIS 08	KNOWLEDGE ORGANIZATION – LIBRARY CATALOGUING PRACTICE	C01	Use the catalogue codes and standards.
			C02	Prepare catalogue entries for various types of information sources.
			C03	Derive subject headings using various methods and tools.
	BLIS 09	INFORMATION TECHNOLOGY PRACTICAL	C01	Create, edit, and manage files using Word Processing, Spread Sheet and Power Point Presentation software.
			C02	Carry out library housekeeping operations and generate different types of report using library management software koha.
	BLIS 10	PROJECT WORK AND VIVA	C01	Students have to carry out project works under the guidance of a faculty member and prepare reports. The students should also appear for a viva-voce
Name of the Programme				Bachelor of Science, Hotel Management & Catering
Short Name of the Programme				B.Sc. Hotel Mgt & Catering Science
Code of the Programme				CCAHMCS
Semester	Course code	Title	CO No.	Course Outcomes
1	CC20UBSH1 B01	INTRODUCTION TO HOSPITALITY INDUSTRY	CO1	Assess the hospitality industry and get introduced to the history of hotels, resorts, and motels
			CO2	Categorize different types of hotels.
			CO3	Prepare hotel organizations and job descriptions.
			CO4	Compile customer service and guest service.
			CO5	Design areas of the hospitality industry.
	CC20UBSH1 CO1	SALES AND MARKETING	CO1	Appraise fundamental concepts, theories, and principles in the areas of sales and marketing.
			CO2	Formulate a Marketing Information System (MIS).
			CO3	Rate the branding of the hospitality industry.
			CO4	Assess the pricing strategies of hospitality

2	CC20UBSH1 CO2:	TRAVEL AND TOURISM		products.
			CO5	Justify product knowledge in the hospitality business.
			CO1	Generate knowledge about domestic and international tourism.
			CO2	Assess the revenue strategy of the tourism and hospitality businesses.
			CO3	Detect different world tourism and travel associations.
			CO4	Inspect the Indian tourism industry with special reference to monuments, heritage sites, cultural artifacts, and natural tourism products.
	CC20UBSH2 B02:	ACCOMMODATION OPERATION	CO5	Create the list of documents required for international travel.
			CO1	Apprise housekeeping department and the importance of the same
			CO2	Judge the organizational framework of the housekeeping department.
			CO3	Choose any bed-making procedure.
			CO4	Formulate housekeeping procedures and public area cleaning.
			CO5	Prepare a cleaning procedure and different types of cleaning.
2	CC20UBSH2 B02 (P):	ACCOMMODATION OPERATION (PRACTICAL)	CO1	Prioritize the use of cleaning equipment and cleaning agents.
			CO2	Plan the process of bed-making and the cleaning procedure for the guest room
			CO3	Assess the standard supplies and setting of the maid's cart and different types of trolleys.
			CO4	Plan guest room inspection and linen folding.
			CO5	Design a turndown service and a second service.
	CC20UBSH2 C03	EVENT MANAGEMENT	CO1	Appraise the definition and basic concepts of event management.
			CO2	Compose event management as a profession.
			CO3	Develop event planning.

3	CC20UBSH2 C04	MANAGEMENT PRINCIPLES A PRACTICES	CO4	Monitor various international travel and trade fairs.
			CO5	Design an event marketing plan.
			CO1	Appraise the principles of the organizational management process.
			CO2	Compile management functions
			CO3	Choose managerial and leadership styles.
			CO4	Monitor work group behavior and productivity.
			CO5	Debate the communication process.
	CC20UBSH3 B03:	FOOD AND BEVERAGE PRODUCTION 1	CO1	Appraise an introduction to cooking.
			CO2	Invent the basic principles of food production.
			CO3	Assess the classification of meat, rice, and pulses.
			CO4	Monitor beverages, milk, and milk products.
			CO5	Choose the method of cooking.
	CC20UBSH3 B03 (P):	FOOD AND BEVERAGE PRODUCTION (PRACTICAL)	CO1	Appraise the cutting of vegetables and the preparation of stocks and sauces.
			CO2	Choose the production of soup.
			CO3	Prepare dishes with eggs, fish, poultry, meat, potatoes, and vegetables.
			CO4	Learn the production of Indian cuisine.
			CO5	Develop salads and sandwiches.
	CC20UBSH3 B04:	FOOD AND BEVERAGE SERVICE- I	CO1	Appraise catering and the classification of the catering industry.
			CO2	Assess the department organization and staffing.
			CO3	Judge the use of operating equipment.
			CO4	Appraise the menu and types of services.
			CO5	Rate the different types of buffets.
	CC20UBSH3 B04 (P):	FOOD AND BEVERAGE SERVICE- I (PRACTICAL)	CO1	Judge the food and beverage areas.
			CO2	Assemble basic technical skills.
			CO3	Appraise menu planning.

4			CO4	Assess food and beverage service and breakfast service.
			CO5	Assemble a fine dining restaurant.
	CC20UBSH3 CO5:	NUTRITION HYGIENE AND SANITATION	CO1	Assess the definition of basic concepts in nutrition, hygiene and sanitation.
			CO2	Judge the planning of nutritionally balanced meals.
			CO3	Formulate the Recommended Dietary Allowances (RDA) of the menu.
			CO4	Design sanitation procedure and personal hygiene.
			CO5	Devise food preservation techniques to minimize food spoilage.
	CC20UBSH3 CO6:	FACILITY PLANNING	CO1	Appraise hotel design and hotel classification.
			CO2	Develop kitchen and restaurant design.
			CO3	Rate project management.
			CO4	Assess the energy conservation program in the hotel industry.
			CO5	Assess the different types of approval for starting a hotel project.
	CC20UBSH4 A13	ENTREPRENEURSHIP DEVELOPMENT	CO1	Appraise Entrepreneurs and the Fundamentals of Entrepreneurship
			CO2	Rank Micro and Small Medium Enterprises
			CO3	Rate project management.
			CO4	Conclude Business opportunities in Kerala
			CO5	Setup an industrial unit (mock)
	CC20UBSH4 A14	BANKING AND INSURANCE	CO1	Appraise banking and economic development
			CO2	Assess negotiable instruments
			CO3	Rate modern banking methods
			CO4	Judge Insurance and Life Insurance Concept
			CO5	Monitor a proposal for life insurance and how to claim it in case of death or accident.
	CC20UBSH4 B05	FOOD AND BEVERAGE SERVICE	CO1	Appraise the classification of beverages
			CO2	Assess bars and alcoholic beverages.

		-II	CO3	Monitor wines, Champagne, fortified wines and aperitifs
			CO4	Appraise liqueurs, beer, cocktails and spirits.
			CO5	Justify the menu engineering methods.
	CC20UBSH4 B05(P)	FOOD AND BEVERAGE SERVICE -II PRACTICAL	CO1	Appraise dispense bar and organizing Mise-en-place.
			CO2	Assess Planning and operating food and beverage outlets.
			CO3	Rate cocktails, mixed drinks, and alcoholic beverages.
			CO4	Prioritize matching wines with food.
			CO5	Develop a menu with accompanying wines.
	CC20UBSH4 B06	FOOD AND BEVERAGE PRODUCTION -II	CO1	Appraise Indian Cookery.
			CO2	Assess the quantity food production and menu planning.
			CO3	Rate international cuisine like sandwiches, charcuterie, appetizers, and garnishes.
			CO4	Monitor Bakery and confectionery.
			CO5	Choose the best method for equipment care and maintenance.
	CC20UBSH4 B06(P)	FOOD AND BEVERAGE PRODUCTION -II PRACTICAL	CO1	Compile the production of continental dishes.
			CO2	Create the production of bread.
			CO3	Develop the production of salad.
			CO4	Generate the production of Dessert
			CO5	Develop and prepare a five-course continental menu.
	CC20UBSH4 C07	HOTEL LAWS	CO1	Appraise Indian Contract Act, 1872
			CO2	Monitor Contract of Bailment and pledges
			CO3	Judge Sale of Goods Act, 1930.
			CO4	Rate Hotel laws, shops, and establish act.
			CO5	Assess the special contracts
	CC20UBSH4 C08	HUMAN RESOURCE MANAGEMENT	CO1	Appraise human resource planning and personnel offices.
			CO2	Assess the job evaluation.

5			CO3	Compile methods for attracting and retaining talents like career planning
			CO4	Monitor employee counseling.
			CO5	Judge the HRD Systems
	CC20UBSH5 B07	FRONT OFFICE OPERATION	CO1	Appraise hospitality industry and front office organizations.
			CO2	Assess the Room Tariff, reservation and registration procedures
			CO3	Create a check in and check out procedure
			CO4	Assess daily transactions.
			CO5	Plan night auditing
	CC20UBSH5 B07 (P)	FRONT OFFICE OPERATION PRACTICAL	CO1	Appraise the procedure for reservation and registration
			CO2	Assess guest history, telephone and housekeeping procedures.
			CO3	Judge daily transactions and front office accounting procedure.
			CO4	Monitor role play.
			CO5	Judge between Manual accounting and machine accounting.
	CC20UBSH5 B08	ACCOMMODATION MANAGEMENT	CO1	Appraise linen and uniform room management
			CO2	Assess the laundry department
			CO3	Justify the interior design and flower arrangement.
			CO4	Monitor housekeeping supervision.
			CO5	Create a method for pest control.
	CC20UBSH5 B09	ROOM DIVISION MANAGEMENT	CO1	Appraise computer applications in front office
			CO2	Judge yield management.
			CO3	Rate the process of evaluating hotel performance.
			CO4	Assess the soft skills for hospitality and quality management.
			CO5	Rank the business process reengineering.
	CC20UBSH5	FOOD AND	CO1	Assess cost and sales dynamics.

6	B10	BEVERAGE MANAGEMENT	CO2	Compile inventory control and food and beverage control.
			CO3	Judge standard costing, variance analysis and breakeven.
			CO4	Rate menu merchandising.
			CO5	Develop a budgetary control system
	CC20UBSH6 B13 (pr)	PROJECT REPORT AND VIVA	CO1	Appraise project proposal presentation
			CO2	Construct review of literature
			CO3	Assemble process of field work and data analysis.
			CO4	Design report writing.
			CO5	Make Final Report and submission.
	CC20UBSH6 B11	INDUSTRIAL EXPOSURE TRAINING REPORT	CO1	Appraise different operational departments in the hotel.
			CO2	Develop the relationship.
			CO3	Criticize daily functions of varies department in the hotel.
			CO4	Rate standard operating procedures of departments.
			CO5	Examine the performance appraisal.
	CC20UBSH6 B12	COMPREHENSIVE SELF-STUDY	CO1	Appraise hotel departments.
			CO2	Monitor technical words used in core department.
			CO3	Appraise functions of front office and Housekeeping.
			CO4	Assess the functions of F&B Service and F&B Production.
			CO5	Assess the different hospitality techniques followed in the hotels.
Name of the Programme			Bachelor of Arts, Economics Aided	
Short Name of the Programme			B.A. Economics	
Code of the Programme			CCAECR	
Semester	Course code	Title	CO No.	Course outcomes

1	CC19U ECO1 B01	MICRO ECONOMICS – I	CO1	Generate the fundamental concepts and principles to identify a pattern of resource allocation for the well-being of society.
			CO2	Constructing an idea of supply and demand elasticities and accurately predicting the market movements.
			CO3	Assess the consumer preferences in decision-making under different market conditions.
			CO4	Hypothesize the consumer behaviour with indifference curve analysis and revealed preference axiom
			CO5	Analyse the superiority of the modern theory of production and cost over the traditional approach of production and cost.
	HIS1C01	MODERN INDIAN HISTORY (1857 TO THE PRESENT):1	CO1	Evaluate the background of the rise of the nation formation process in India.
			CO2	Examine how colonial powers established their power in India.
			CO3	Analyse the early resistance against colonialism in India
			CO4	Evaluate the early national movement in India
			CO5	Critically examine the Indian national movement.
2	CC19UECO2 B02	MACROECONOMICS 1	CO1	Develop the skill to measure national income using various approaches and evaluate economic indicators for policy-making and economic stability.
			CO2	Analyze the classical models of output, employment, and price level determination and evaluate the Classical economists' contributions to economic crises and policy responses.
			CO3	Assemble the determinants of economic equilibrium by assessing the effectiveness of aggregate demand and supply and Theories of Demand for money.
			CO4	Appraise the role of fiscal policy in managing economic fluctuations by assessing the implications of policy choices on economic stability.

3			CO5	Assess the role of money in the economy and evaluate the implications of monetary policy decisions on economic stability and growth.
	POL4 (3) CO2	POLITICAL SCIENCE: POLITICAL IDEAS, CONCEPTS AND IDEOLOGIES	CO 1	Hypothesize various concepts in Political Science
			CO 2	Hypothesize law equality liberty justice right duties power influence authority and legitimacy
			CO3	Analyze individualism liberalism Marxism
			CO 4	Justify the meaning of democracy and various democratic devices
			CO5	Analyze the role of public opinion in democracy
	PO1CO1	INTRODUCTION TO POLITICAL SCIENCE AND GOVERNMENTAL STRUCTURE AND PROCESS	CO1	Justify the origin, meaning and importance of political sciences and different approaches in the study of discipline
			CO2	Analyze the elements of the state and different theories of the origin of the state
			CO3	Examine the theory of separation of power and organs of government
			CO4	Categorize the various forms of government and its characteristics
			CO5	Integrate about election and different forms of representation and the types and functions of political parties, pressure groups and interest groups
	CC19UECO3 B03	QUANTITATIVE METHODS FOR ECONOMIC ANALYSIS-I	CO1	Assemble various statistical tools to foster a research attitude in the students of Economics
			CO2	Prepare the students to compute various methods of correlation and know the differences between correlation and regression.
			CO3	Create the students to compute and interpret simple linear regression between two variables
			CO4	Hypothesize the basic matrix algebra and its various uses and applications.
			CO5	Generate knowledge about various measurement of trend like semi average, moving average and least square

4	CC19U ECO3 B04	MICROECONOMICS II	CO1	Assess the different market structures by their unique characteristics and analyze the perfect competition.
			CO2	Generate an idea about the types of monopolies and their price discrimination technique.
			CO3	Creating an awareness of product differentiation and selling costs in monopolistic competition
			CO4	Developing an idea about the economics of interdependence and uncertainty leads to cooperation among rival firms in an oligopoly market.
			CO5	Compare the pricing and employment of inputs techniques in different competitive factor markets.
	CC19UECO4 B05	QUANTITATIVE METHODS FOR ECONOMIC ANALYSIS-II	CO1	Formulate different types of index numbers and the importance of index numbers in Indian Economy.
			CO2	Examine various statistical tools to foster a research attitude in the students of Economics
			CO3	Design the theory of probability and its applications
			CO4	Develop basic counting techniques (addition rule and multiplication rule,) to compute probability.
			CO5	Construct the measurement of trend like semi average, moving average and least square.
	CC19UECO4 B06	MACROECONOMICS II	CO1	Develop a deep understanding of the ISLM model and its implications for macroeconomic policy.
			CO2	Analyze the different types of inflation, their effects on the economy, the different theories of inflation and also propose strategies for controlling inflation.
			CO3	Integrate the different types of unemployment, Phillips curves, the causes of stagflation, and the concept of NAIRU to form a comprehensive understanding of these topics.
			CO4	Analyze the phases of the business cycle and

				the theories that explain them, and bring out plans to manage the business cycle in a particular country.
			CO5	Assess the tools and effectiveness of fiscal and monetary policy, and policy proposals to address specific economic problems using fiscal or monetary policy.
2		HIS2C01 MODERN INDIAN HISTORY (1857 TO THE PRESENT) II	CO1	Analyse the nature of Gandhian programs
			CO2	Critically examine the major critiques of Gandhian philosophy
			CO3	Examine the reasons behind the formation of Indian Republic.
			CO4	Analyse the major issues faced by the India democracy during the initial phase.
			CO5	Analyse the new initiatives of Indian democracy
5	CC19UEC05 B07	FISCAL ECONOMICS	CO1	Analyze the policy implications of macroeconomic concepts in the context of public policy and social welfare.
			CO2	Design economic policies related to public spending based on the theories and effects of public expenditure on the Indian economy.
			CO3	Develop practical skills in calculating personal and corporation income tax and designing effective tax policies for an economy.
			CO4	Develop the ability to assess the implications of fiscal decisions on debt management, budgetary allocations, and overall macroeconomic performance.
			CO5	Examine the dynamics of fiscal interactions between different levels of government in India and their implications on public finances, governance, and economic development.
	CC19UEC05 B08	INDIAN ECONOMIC DEVELOPMENT	CO1	Critique the economic policies pursued by India in the early years of independence, and propose a new policy framework for India's economic development in the 21st century.
			CO2	Assess the impact of economic reforms on India's economy, and recommend policy changes to improve the effectiveness of

				reforms in the 21st century.
			CO3	Analyze the contribution of different sectors to India's GDP, and classify the sectors with the most potential for future growth.
			CO4	Formulate policy solutions to address the challenges facing the Indian economy, such as poverty, unemployment, and inequality.
			CO5	Compare the economic development of Kerala with the rest of India, and classify the factors that have contributed to Kerala's relatively high level of human development
	CC19UECO5 B09	ECONOMICS OF CAPITAL MARKET	CO1	Analyze financial asset traits, differentiate tangible and intangible assets, and classify debt-equity dynamics within financial markets.
			CO2	Appraise capital market instruments (shares, debentures, bonds), evaluate DIIs, FIIs, Mutual Funds, and analyze SEBI's regulatory impact on market efficiency.
			CO3	Evaluate new issue methods (IPO, Rights, Book Building), assess intermediaries (Merchant Bankers, Underwriters), and analyze factors affecting new issue performance.
			CO4	Differentiate primary and secondary markets, appraise stock exchange functions, assess indices (SENSEX, Nifty), and compare global stock exchange development.
			CO5	Synthesize and Apply Capital Market Concepts
	CC19UECO5 B10	MATHEMATICAL ECONOMICS	CO1	Create the Students to learn how to deal economic problems with the help of mathematics.
			CO2	Make the Students to know different types of economic functions like utility functions, production functions etc.
			CO3	Create a solid foundation in both mathematics and economics, stressing those areas of mathematics and statistics that are most relevant to economics and the parts of economics that emphasize the use of mathematics and statistics.

6			CO4	Justify advance and technically rigorous nature of course would serve as an excellent foundation for students for studying economic with the help of mathematical tools.
			CO5	Analyze the mathematical techniques to the study of economic model, to formally represent economic relationships using mathematical forms & present several economic functions and their relations
	CC19UECO5 D01	ECONOMICS IN EVERYDAY LIFE	CO1	Analyze Economic Fundamentals
			CO2	Evaluate Market Dynamics and Elasticities
			CO3	Examine Macroeconomic Indicators and Policies
			CO4	Develop Strategic Decision-Making Skills
			CO5	Validate economic theories across a spectrum of contexts
	CC19U ECO6 B11	FINANCIAL ECONOMICS	CO1	Develop the knowledge of investment theories and the structure of interest rates.
			CO2	Assess the significant financial instruments such as bonds, stocks, futures, and options and discuss techniques to value these diverse financial assets.
			CO3	Examine different models and hypotheses for the valuation of bonds and securities.
			CO4	Analyse the standard asset pricing models, their underlying assumptions, and their usefulness in financial decision-making.
			CO5	Distinguish the financial derivative markets and the use of forward and futures contracts for future prices.
	CC19UECO6 B12	INTERNATIONAL ECONOMICS	CO1	Compose both theoretical and empirical aspects of international economics and understand the consequences of global interdependence
			CO2	Devise Students to know the country's position regarding international trade, payments and foreign exchange.
			CO3	Make the students to learn the methods regarding improvement in terms of trade, international debt and balance of payments

				positions
			CO4	Justify the importance of international trade and analyse various international trade theories
			CO5	Examine the importance and way to regulate international trade and the national economy in the global context
	CC19UECO6 B13	DEVELOPMENT OF ECONOMIC THOUGHT	CO1	Develop the knowledge of the origin and development of economic ideas
			CO2	Examine the views of economics by various schools of thought
			CO3	Develop the knowledge of various schools of economics.
			CO4	Generate confidence in evaluating economic ideas and understand the government policies from the perspectives of different economic ideas
			CO5	Hypothesize the Indian Economic thought.
	CC19UECO6 B14	ECONOMICS OF GROWTH AND DEVELOPMENT	CO1	Evaluate Development Indicators and causes of Underdevelopment
			CO	Analyse Underdevelopment Theories and Impacts of underdevelopment
			CO3	Evaluate Growth Models and Factors affecting economic growth
			CO4	Deduce Sustainable Development and Environmental Impact
			CO5	Develop a nuanced perspective towards the complexities of global economic evolution and decipher intricate developmental patterns.
	CC19UECO6 B16	BASIC ECONOMETRICS	CO1	Examine the nature and scope of econometrics, and its relationship to economic theory and mathematical economics.
			CO2	Apply the method of ordinary least squares to estimate a simple linear regression model, and interpret the results.
			CO3	Understand the different functional forms of regression models, and their implications for the interpretation of the results.

			CO4	Critically evaluate the assumptions underlying multiple regression models and apply their knowledge to real-world problems.
			CO5	Identify and correct for the problems of multicollinearity, autocorrelation, and heteroskedasticity in regression models
Name of the Programme			Bachelor of Arts, Economics Unaided	
Short Name of the Programme			B.A. Economics	
Code of the Programme			CCAECR	
Semester	Course code	Title	CO No.	Course outcomes
1	CC19U ECO1 B01	MICRO ECONOMICS – I	CO1	Generate the fundamental concepts and principles to identify a pattern of resource allocation for the well-being of society.
			CO2	Constructing an idea of supply and demand elasticities and accurately predicting the market movements.
			CO3	Assess the consumer preferences in decision-making under different market conditions.
			CO4	Hypothesize the consumer behaviour with indifference curve analysis and revealed preference axiom
			CO5	Analyse the superiority of the modern theory of production and cost over the traditional approach of production and cost.
	HIS1C01	MODERN INDIAN HISTORY (1857 TO THEPRESENT):1	CO1	Evaluate the background of the rise of the nation formation process in India.
			CO2	Examine how colonial powers established their power in India.
			CO3	Analyse the early resistance against colonialism in India
			CO4	Evaluate the early national movement in India
			CO5	Critically examine the Indian national movement.
2	CC19UECO2 B02 -	MACROECONOMICS 1	CO1	Develop the skill to measure national income using various approaches and evaluate economic indicators for policy-making and economic stability.

			CO2	Analyze the classical models of output, employment, and price level determination and evaluate the Classical economists' contributions to economic crises and policy responses.
			CO3	Assemble the determinants of economic equilibrium by assessing the effectiveness of aggregate demand and supply and Theories of Demand for money.
			CO4	Appraise the role of fiscal policy in managing economic fluctuations by assessing the implications of policy choices on economic stability.
			CO5	Assess the role of money in the economy and evaluate the implications of monetary policy decisions on economic stability and growth.
	POL4 (3) CO2	POLITICAL SCIENCE: POLITICAL IDEAS, CONCEPTS AND IDEOLOGIES	CO 1	Hypothesize various concepts in Political Science
			CO 2	Hypothesize law equality liberty justice right duties power influence authority and legitimacy
			CO3	Analyze individualism liberalism Marxism
			CO 4	Justify the meaning of democracy and various democratic devices
			CO5	Analyze the role of public opinion in democracy
	PO1CO1	INTRODUCTION TO POLITICAL SCIENCE AND GOVERNMENTAL STRUCTURE AND PROCESS	CO1	Justify the origin, meaning and importance of political sciences and different approaches in the study of discipline
			CO2	Analyze the elements of the state and different theories of the origin of the state
			CO3	Examine the theory of separation of power and organs of government
			CO4	Categorize the various forms of government and its characteristics
			CO5	Integrate about election and different forms of representation and the types and functions of political parties, pressure groups and interest groups
3	CC19UECO3	QUANTITATIVE METHODS FOR	CO1	Assemble various statistical tools to foster a research attitude in the students of

	B03	ECONOMIC ANALYSIS-I		Economics
			CO2	Prepare the students to compute various methods of correlation and know the differences between correlation and regression.
			CO3	Create the students to compute and interpret simple linear regression between two variables
			CO4	Hypothesize the basic matrix algebra and its various uses and applications.
			CO5	Generate knowledge about various measurement of trend like semi average, moving average and least square
	CC19U ECO3 B04	MICROECONOMICS II	CO1	Assess the different market structures by their unique characteristics and analyze the perfect competition.
			CO2	Generate an idea about the types of monopolies and their price discrimination technique.
			CO3	Creating an awareness of product differentiation and selling costs in monopolistic competition
			CO4	Developing an idea about the economics of interdependence and uncertainty leads to cooperation among rival firms in an oligopoly market.
			CO5	Compare the pricing and employment of inputs techniques in different competitive factor markets.
4	CC19UECO4 B05	QUANTITATIVE METHODS FOR ECONOMIC ANALYSIS-II	CO1	Formulate different types of index numbers and the importance of index numbers in Indian Economy.
			CO2	Examine various statistical tools to foster a research attitude in the students of Economics
			CO3	Design the theory of probability and its applications
			CO4	Develop basic counting techniques (addition rule and multiplication rule,) to compute probability.
			CO5	Construct the measurement of trend like semi

				average, moving average and least square.
	CC19UECO4 B06 -	MACROECONOMICS II	CO1	Develop a deep understanding of the ISLM model and its implications for macroeconomic policy.
			CO2	Analyze the different types of inflation, their effects on the economy, the different theories of inflation and also propose strategies for controlling inflation.
			CO3	Integrate the different types of unemployment, Phillips curves, the causes of stagflation, and the concept of NAIRU to form a comprehensive understanding of these topics.
			CO4	Analyze the phases of the business cycle and the theories that explain them, and bring out plans to manage the business cycle in a particular country.
			CO5	Assess the tools and effectiveness of fiscal and monetary policy, and policy proposals to address specific economic problems using fiscal or monetary policy.
2	HIS2C01	MODERN INDIAN HISTORY (1857 TO THE PRESENT) II	CO1	Analyse the nature of Gandhian programs
			CO2	Critically examine the major critiques of Gandhian philosophy
			CO3	Examine the reasons behind the formation of Indian Republic.
			CO4	Analyse the major issues faced by the India democracy during the initial phase.
			CO5	Analyse the new initiatives of Indian democracy
5	CC19UEC05 B07	- FISCAL ECONOMICS	CO1	Analyze the policy implications of macroeconomic concepts in the context of public policy and social welfare.
			CO2	Design economic policies related to public spending based on the theories and effects of public expenditure on the Indian economy.
			CO3	Develop practical skills in calculating personal and corporation income tax and designing effective tax policies for an economy.
			CO4	Develop the ability to assess the implications of fiscal decisions on debt management,

				budgetary allocations, and overall macroeconomic performance.
			CO5	Examine the dynamics of fiscal interactions between different levels of government in India and their implications on public finances, governance, and economic development.
	CC19UECO5 B08 -	INDIAN ECONOMIC DEVELOPMENT	CO1	Critique the economic policies pursued by India in the early years of independence, and propose a new policy framework for India's economic development in the 21st century.
			CO2	Assess the impact of economic reforms on India's economy, and recommend policy changes to improve the effectiveness of reforms in the 21st century.
			CO3	Analyze the contribution of different sectors to India's GDP, and classify the sectors with the most potential for future growth.
			CO4	Formulate policy solutions to address the challenges facing the Indian economy, such as poverty, unemployment, and inequality.
			CO5	Compare the economic development of Kerala with the rest of India, and classify the factors that have contributed to Kerala's relatively high level of human development
	CC19UECO5 B09	ECONOMICS OF CAPITAL MARKET	CO1	Analyze financial asset traits, differentiate tangible and intangible assets, and classify debt-equity dynamics within financial markets.
			CO2	Appraise capital market instruments (shares, debentures, bonds), evaluate DIIs, FIIs, Mutual Funds, and analyze SEBI's regulatory impact on market efficiency.
			CO3	Evaluate new issue methods (IPO, Rights, Book Building), assess intermediaries (Merchant Bankers, Underwriters), and analyze factors affecting new issue performance.
			CO4	Differentiate primary and secondary markets, appraise stock exchange functions, assess indices (SENSEX, Nifty), and compare global stock exchange development.
			CO5	Synthesize and Apply Capital Market

6	CC19UECO5 B10	MATHEMATICAL ECONOMICS		Concepts
			CO1	Create the Students to learn how to deal economic problems with the help of mathematics.
			CO2	Make the Students to know different types of economic functions like utility functions, production functions etc.
			CO3	Create a solid foundation in both mathematics and economics, stressing those areas of mathematics and statistics that are most relevant to economics and the parts of economics that emphasize the use of mathematics and statistics.
			CO4	Justify advance and technically rigorous nature of course would serve as an excellent foundation for students for studying economic with the help of mathematical tools.
			CO5	Analyze the mathematical techniques to the study of economic model, to formally represent economic relationships using mathematical forms & present several economic functions and their relations
	CC19UECO5 D01	ECONOMICS IN EVERYDAY LIFE	CO1	Analyze Economic Fundamentals
			CO2	Evaluate Market Dynamics and Elasticities
			CO3	Examine Macroeconomic Indicators and Policies
			CO4	Develop Strategic Decision-Making Skills
			CO5	Validate economic theories across a spectrum of contexts
	CC19U ECO6 B11	FINANCIAL ECONOMICS	CO1	Develop the knowledge of investment theories and the structure of interest rates.
			CO2	Assess the significant financial instruments such as bonds, stocks, futures, and options and discuss techniques to value these diverse financial assets.
			CO3	Examine different models and hypotheses for the valuation of bonds and securities.
			CO4	Analyse the standard asset pricing models, their underlying assumptions, and their usefulness in financial decision-making.

			CO5	Distinguish the financial derivative markets and the use of forward and futures contracts for future prices.
	CC19UECO6 B12	INTERNATIONAL ECONOMICS	CO1	Compose both theoretical and empirical aspects of international economics and understand the consequences of global interdependence
			CO2	Devise Students to know the country's position regarding international trade, payments and foreign exchange.
			CO3	Make the students to learn the methods regarding improvement in terms of trade, international debt and balance of payments positions
			CO4	Justify the importance of international trade and analyse various international trade theories
			CO5	Examine the importance and way to regulate international trade and the national economy in the global context
	CC19UECO6 B13	DEVELOPMENT OF ECONOMIC THOUGHT	CO1	Develop the knowledge of the origin and development of economic ideas
			CO2	Examine the views of economics by various schools of thought
			CO3	Develop the knowledge of various schools of economics.
			CO4	Generate confidence in evaluating economic ideas and understand the government policies from the perspectives of different economic ideas
			CO5	Hypothesize the Indian Economic thought.
	CC19UECO6 B14	ECONOMICS OF GROWTH AND DEVELOPMENT	CO1	Evaluate Development Indicators and causes of Underdevelopment
			CO	Analyse Underdevelopment Theories and Impacts of underdevelopment
			CO3	Evaluate Growth Models and Factors affecting economic growth
			CO4	Deduce Sustainable Development and Environmental Impact
			CO5	Develop a nuanced perspective towards the complexities of global economic evolution

				and decipher intricate developmental patterns.
	CC19UECO6 B16	BASIC ECONOMETRICS	CO1	Examine the nature and scope of econometrics, and its relationship to economic theory and mathematical economics.
			CO2	Apply the method of ordinary least squares to estimate a simple linear regression model, and interpret the results.
			CO3	Understand the different functional forms of regression models, and their implications for the interpretation of the results.
			CO4	Critically evaluate the assumptions underlying multiple regression models and apply their knowledge to real-world problems.
			CO5	Identify and correct for the problems of multicollinearity, autocorrelation, and heteroskedasticity in regression models
5	CC19UECO5 D02	INDIAN FINANCIAL SYSTEM	CO1	Categorize the components of Indian Financial System
			CO2	Examine operations, functions & the social obligations of commercial banks
			CO3	Define regulatory frameworks of RBI & SEBI
			CO4	Appraise the functions and role of NBTI's
			CO5	Formulate an idea about Money market, Capital market and stock exchanges
6	CC19UECO6 B18	URBAN ECONOMICS	CO1	Identify the principles and the process of urbanization of a geographical area
			CO2	Develop a theoretical structure pertaining urban development scenario
			CO3	Describe the idea of the governance of the Local Self Governments and the social and economic activities implemented by them
			CO4	Determine and estimate the demand and supply forces influencing urban Labour Market
			CO5	Analyse the different types of urban development policies initiated by Central and state Governments

Name of the Programme			Bachelor of Arts, English and History	
Short Name of the Programme			B.A. English & History	
Code of the Programme			CCADE	
Semester	Course code	Title	CO No.	Course outcomes
1	ENG1B01	INTRODUCING LITERATURE	CO1	Make the students to identify the linguistic structures of poetic texts: symbols
			CO2	prepare students in reading literary/cultural texts closely, beyond the literal meanings
			CO3	Develop questioning skills in students in order to understand marginalized voices presented in the text
			CO4	Analyse how the subaltern perspectives question and counter the culture
			CO5	Examine diverse points of view within a single text and to understand the literal and social meanings.
	HIS1B01	TRENDS IN HISTORIOGRAPHY	CO1	Examine the various trends in the writing of History across the world
			CO2	Develop the skills among the students to write and learn History
			CO3	Understand the development of History as a discipline.
			CO4	Understand the various trends in the writing of History across the world.
			CO5	Understand the paradigm shifts in the writing of history.
2	ENG2B02	APPRECIATING POETRY	CO1	Evaluate the basic elements of poetry, including the stylistics
			CO2	Make students to attain various perspective in reading poetry like gender issues, and other social problems
			CO3	Prepare the learners with different forms of poetry written in British and other languages
			CO4	Create an awareness among the learners about different forms and themes of poetry

			CO5	Develop an understanding of various poetic devices and techniques such as metaphor, simile, rhyme, rhythm and symbolism
	HIS2B02	TRENDS IN INDIAN HISTORIOGRAPHY	CO1	Explain the evolution of History as a discipline in India
			CO2	Examine the paradigm shifts in the writing of History in India
			CO3	Analyze the recent trends in the development of History writing.
3	ENG3B03	APPRECIATING PROSE	CO1	Analyze different types of prose writing
			CO2	Develop the students to the basic concepts of style and literary devices in prose.
			CO3	Prepare them with cultural diversity and divergence in perspectives
			CO4	Examine historical and cultural contexts of various works
			CO5	Generate the skills for appreciation for the artistry and impact of language
	ENG3B04	ENGLISH GRAMMAR AND USAGE	CO1	Make the students with the key concepts of English grammar and to use them in academic and personnel life.
			CO2	Make the students towards a better language use through the understanding of the texts
			CO3	Develop a sense of English grammar, idioms, syntax among students
			CO4	develop the logical and analytical skills in the use of language for academic and non-academic purposes
			CO5	Make students with contemporary English usage.
	HIS3B03	INDIAN HISTORY 1	CO1	Assess the evolution and development of early society in India.
			CO2	Create awareness about the culture and civilisation of ancient India.
			CO3	Analyze the recent approaches and developments early History.
4	ENG4B06	LITERARY CRITICISM	CO1	Describe the history of literary criticism, tracing the evolution of critical approaches over time

			CO2	Distinguish various critical theories and literary critics along with their seminal texts and key concepts
			CO3	Validate how literary criticism shapes literature and culture across centuries.
			CO4	Criticize the major arguments underlying critical writings relating perspectives to the history of eastern and western ideas
			CO5	Inspect how literary theories can be applied to contemporary cultural, social, and political issues, allowing you to analyze and interpret current narratives and discourses.
	HIS4B04	INDIAN HISTORY 2	CO1	Explain the students about cultural and economic development in medieval India
			CO2	Summarize the nature and formation state, society in medieval India.
			CO3	Identify about the advent of religions and foreigners to India and their impact in the polity, society, culture and fine arts.
	HIS4B05	GENDER STUDIES	CO1	Explain conventional social norms about male female dichotomy and can devise policies and strategies to foster gender equality and gender justice.
			CO2	Construct in a world with less inequality by contributing creative interventions .
			CO3	Critically interrogate and actively engage in social processes related to the construction of gender.
			CO4	Analyse social and cultural phenomena through the lens of gender in a way that appreciates a range of disciplinary perspectives.
5	ENG5B23	APPRECIATING DRAMA	CO1	Justify the entire range of human experience through drama as a literary form.
			CO2	Illustrate the basic elements of drama, including the historical progress of drama in different continents.
			CO3	Appraise drama as an art form and identify the different genres and masters of drama.
			CO4	Assess the theatrical performances and the texts and evaluate them critically from various

				standpoints.
			CO5	Explain the insights, conventions and experimentations associated with World Theatre.
	HIS5B06	INDIAN HISTORY -3	CO1	Examine the impact of colonialism and its presence in contemporary India
			CO2	Inspect the values and the ideologies of freedom struggle.
			CO3	Cite the mass basis of Indian national movement
			CO4	Assess the dynamics of Indian economy that have rooted in both colonial and native practices.
			CO5	Identify the process of class formations in modern India
	HIS5B07	KERALA HISTORY - 1	CO1	Reconstructing the major aspects of the evolution of Kerala history and culture in the light of new researches and findings.
			CO2	Recognize the importance of landscape and seascape of Kerala and its climate and engage in the activities related to the balanced use of natural resources.
			CO3	Identify the evolution of land relations in Kerala and its impact on social life.
			CO4	Examine the trade items of Kerala related to Arabian sea and the Indian Ocean.
			CO5	Summarize the changes occurred in the landscape of Kerala especially its flora and fauna with the arrival foreigners.
	ENG5B09	LANGUAGE AND LINGUISTICS	CO1	Develop a solid understanding of the fundamental concepts, theories, and principles of linguistics
			CO2	Analyze the structure of languages, including the sounds, words, sentences, and meanings that comprise them.
			CO3	Examine factors influencing language variation and change.
			CO4	Analyze how words are formed and combined to create meaningful expressions.
			CO5	Examine the study of signs and symbols and how individuals acquire their first language

				and subsequent languages
6	ENG6B11	VOICES OF WOMEN	CO1	Generate original written or artistic work that embodies the themes and spirit of women's voices.
			CO2	Develop strategies for promoting and amplifying women's voices in contemporary society.
			CO3	Critique the representation of women in different forms of media, literature, and art.
			CO4	Assess the significance of women's voices in challenging and reshaping dominant narratives.
			CO5	Compare and contrast different perspectives presented by women writers on issues of gender, identity, and empowerment.
	ENG6B17	WRITING FOR THE MEDIA	CO1	Make the students familiarized with the latest trends in media
			CO2	Explain the specificities and possibilities of the different kinds of media
			CO3	Provide necessary technical writing skills
			CO4	Analyze and evaluate media content, identifying biases, misinformation, and persuasive techniques.
			CO5	Explain key communication theories and models that underpin media production and consumption.
	ENG6B21	PROJECT	CO1	Develop writing skills
			CO2	Practice effective research techniques and citation of sources.
			CO3	Develop, in the students, an urge for research.
			CO4	Analyze and interpret various literary works from different genres and time periods.
			CO5	Develop the ability to identify, analyze, and solve problems within the context of their chosen field
	HIS6B08	INDIAN HISTORY - 4	CO1	Recognize the social and economic issues of contemporary India and engage in the socially useful productive work.

			CO2	Define a pluralistic society and its relationships to our democratic principle.
			CO3	Analyze the importance of the constitution of India and recognize the contribution of leaders and personalities who prepared it.
			CO4	Assess the degree of environmental issues in the country and contributed to the sustainable development activities.
			CO5	Identifying the cardinal principles of foreign policy of India and think highly of national leaders who contributed to the ideology of peaceful co-existence.
	HIS6B09	KERALA HISTORY -2	CO1	Identify the real nature of the colonial intervention in Kerala.
			CO2	Justify the historical roots of progressive contemporary Kerala.
			CO3	Analyse critically the role of leaders and movements in the transformation of modern Kerala.
			CO4	Describe Kerala Model of development and engage in the re-building process of Kerala economy.
			CO5	Define the issues in Contemporary Kerala so as to be responsive to the same.
5	HIS5D01 Open Course	HISTORICAL TOURISM	CO1	Distinguish the tourism potential of India and Kerala.
			CO2	Create mentors and tourism operators.
			CO3	Assess the importance of eco-tourism and sustainable tourism.
Name of the Programme			Bachelor of Arts, Functional English	
Short Name of the Programme			B. A. Functional English	
Code of the Programme			CCAFER	
Semester	Course code	Title	CO No.	Course outcome
1	FEN1B01	COMMUNICATION SKILLS IN ENGLISH	CO1	Investigate and comprehend the history, importance and types of communication along with models of communication
			CO2	Create confidence to respond in English both in formal and informal situations

			CO3	Develop and enhance oral presentation skills in English through various learning practices
			CO4	Obtain hands on exposure to employability skills in English
			CO5	Evaluate students' performative abilities in English
2	FEN2B02	ADVANCED ENGLISH GRAMMAR	CO1	Develop an understanding of various grammatical units and structures of English grammar
			CO2	Create communicative competence in various language skills, exposing them to accurate grammar in English
			CO3	Evaluate student's performative skills in writing and speaking with grammatical correctness
			CO4	Analyse the various internal and external patterns of English grammar in different contexts
			CO5	Develop proficiency in advanced level of grammatical patterns and usages in English
3	FEN3B03	LANGUAGE AND TECHNOLOGY	CO1	Comprehend how communication technology has influenced the English language and its teaching methods.
			CO2	Demonstrate the practical methods of utilizing the internet to enhance their skills in listening, speaking, reading, and writing (LSRW) in language acquisition.
			CO3	Incorporate smartphones into the context of English language education.
			CO4	Probe into the latest developments in instructional technology.
			CO5	Analyse the evolving language technologies and stay updated on trends and innovations in the field.
	FEN3B04	APPLIED PHONETICS	CO1	Analyse the distinctive sounds of English and understand their production.
			CO2	Produce and transcribe the speech sounds of English using the IPA.
			CO3	Develop the ability to speak English in an internationally acceptable manner.

4			CO4	Apply suprasegmentals such as stress and intonation in speech.
			CO5	Compare and contrast different varieties of English.
	FEN4B05	FUNDAMENTALS OF LINGUISTICS	CO1	Inspect the basic concepts of Linguistics and the origin and development of language.
			CO2	Develop an understanding of the history and development of modern linguistics.
			CO3	Analyse the relationship between language and society and how language varies across different social groups and contexts.
			CO4	Generate meaningful sentences
			CO5	Examine fundamental processes related to domains of morphology, syntax, semantics, phonetics, phonology,
	FEN4B06	BUSINESS ENGLISH	CO1	Apply the foundational principles of business correspondence, fostering cognitive skills in the realm of written communication within a business context.
			CO2	Create hands-on experience in business correspondence to develop practical knowledge and skills in business domain
			CO3	Enhance employability skills by fostering the development, refinement, and utilization of essential competencies
			CO4	Develop critical thinking and problem-solving skills to address communication challenges and make sound business decisions.
			CO5	Appraise proper business etiquette, including email etiquette, phone communication, and professional behavior in meetings and networking events
	FEN5B07	TRANSLATION STUDIES	CO1	Students will be able to demonstrate a high level of proficiency in translating texts from one language to another, considering linguistic, cultural, and contextual nuances
			CO2	Students will be able to critically analyze and identify common challenges and issues encountered in the translation process
			CO3	Students will be able to apply various translation theories and strategies to different

5				types of texts
			CO4	Students will understand cultural competence by recognizing and addressing cultural differences in translation, leading to more culturally sensitive and context-appropriate translations
			CO5	Students will be equipped to assess and evaluate the quality of translations, using established criteria and providing constructive feedback for improvement
	FEN5B08	PRINT MEDIA	CO1	Analyse the history of media with a special reference to Indian journalistic history
			CO2	Examine various types of mass media and their functions
			CO3	Appraise the various components of print media
			CO4	Develop the understanding of various components in the newspaper
			CO5	Familiarize with the journalistic terms
	FEN5B09	THEATRE FOR COMMUNICATION	CO1	Explore and understand the history of theatre and performance as a powerful medium of creative communication practice
			CO2	Examine modern theatre practice with special focus on the proactive and interactive potential of drama and theatre
			CO3	Stimulate creative exploration of ideas and expression of these ideas through dramatic forms and theatre convention
			CO4	Engage in group projects to enhance collaborative and teamwork skills
			CO5	Develop problem-solving abilities in the context of live performances
	FEN5B10	CONTEMPORARY LITERARY THEORY	CO1	Analyse 20th Century Literary Theories and Critical approaches
			CO2	Evaluate major literary movements and school of thoughts.
			CO3	Develop skills to critically think and appreciate Literary works
			CO4	Develop a taste for research through the larger framework of theory.

			CO5	Examine the nuances of Contemporary Literary theories.
6	FEN6B11	ENGLISH LANGUAGE TEACHING	CO1	Analyse the ELT terms
			CO2	Examine the principles, procedures and practices of ELT
			CO3	Compare the theory and practice in English Language Teaching
			CO4	Examine language testing and evaluation
			CO5	Organize various language Teaching methods and techniques
	FEN6B12	ELECTRONIC MEDIA	CO1	Develop an understanding of the historical evolution and development of radio, television, and new media.
			CO2	Develop proficiency in writing for various media platforms, including radio scripts, television scripts, and online content.
			CO3	Acquire proficiency in radio and television production techniques.
			CO4	Understand the impact of media on society and culture.
			CO5	Complete an internship or work experience in a media organization to apply theoretical knowledge in a practical setting.
	FEN6B13	CREATIVE WRITING	CO1	Familiarize learners with the basic concepts and components of different genres of creative writing
			CO2	Express creative writing talents through controlled and free practice.
			CO3	Develop critical and analytical skills in appreciating works written by peers
			CO4	Analyse literary works based on the style and structure of their form
			CO5	Produce creative works using imaginative thinking
	FEN6B14	FILM STUDIES	CO1	Understand the art and aesthetics of films as a mode of artistic expression
			CO2	Apply theoretical knowledge in the appreciation of technical side of film making
			CO3	Analyse the various politics of representation

				in and through films
			CO4	Apply contemporary film theories in the appreciation of film to critique film as a cultural artefact
			CO5	Develop critical interpretations of films across genres
	FEN6B15	ELECTIVE-1 LANGUAGE FOR ADVERTISING: THEORY AND PRACTICE	CO1	Critically analyses the major components of Advertising.
			CO2	Examine the various types of advertisement.
			CO3	Create real time advertisements
			CO4	Assess and evaluate the advertisement and the qualities of a good copy writer to be employable.
	FEN6B17	PROJECT	CO1	Apply theoretical frameworks and critical methods to analyze primary source materials, artworks, or texts related to the research
			CO2	Analyse various texts such as Translations, Media Writings, Advertisements etc. as functions of English language
			CO3	Create original analytical studies on areas related to media, advertisements and journalism
			CO4	Create original analytical studies on areas related to culture and films
			CO5	Create competent translations of existing literary texts
Name of the Programme			Complementary Course: Functional English	
Short Name of the Programme			Functional English	
Code of the Programme			FEN CO	
Semester	Course code	Title	CO No.	Course outcomes
	FEN 1(2) CO1	LITERATURES IN ENGLISH: FROM CHAUCER TO PRESENT	CO1	Inspect the history and literary characteristics of different ages of British literature.
			CO2	Develop an overview of the different genres.
			CO3	Appraise the working of various literary devices in the prescribed texts.
			CO4	Evaluate the works of major writers of

				British literature.
			CO5	Examine social realities through literary discourse
	FEN4 (3) CO1	LITERATURES IN ENGLISH: AMERICAN AND POSTCOLONIAL	CO1	Comprehend the history and evolution of American literature through the ages
			CO2	Analyse some of the classical works of different American authors.
			CO3	Examine the nuances of Post Colonial Theory and concepts.
			CO4	Critically evaluate literary texts from a post-colonial perspective
			CO5	Inspect various movements and concerns of American and Post Colonial literature.
	FEN1 (2) CO2	CULTURAL STUDIES: PERSPECTIVES IN CULTURE	CO1	Understand the basic concepts in Cultural Theory.
			CO2	Apply concepts of Cultural theory to specific research problems.
			CO3	Analyse factors that create and negate various discourses of culture.
			CO4	Critique practices of everyday life under the purview of cultural theory.
			CO5	Develop critical interpretations of various cultural practices in everyday scenarios.
	FEN4 (3) CO2	CULTURAL STUDIES: CULTURAL SPACES	CO1	Understand consumption as a cultural process.
			CO2	Interpret factors that facilitate consumption and the subsequent identity formation.
			CO3	Compare and contrast factors that lead to identity creation in the context of cultural spaces.
			CO4	Critique various cultural spaces of everyday life using cultural theory.
			CO5	Develop critical interpretations of everyday life using concepts in cultural theory.
Name of the Programme				Bachelor of Arts, Computer Science
Short Name of the Programme				B. Sc. Computer Science
Code of the Programme				CCASCS
Semester	Course code	Title	CO	Course outcomes

			No.	
1	BCS1B01	COMPUTER FUNDAMENTALS & HTML	CO1	Summarize the fundamentals of the computer.
			CO2	Categorize the components of Computer organization.
			CO3	Design algorithm and flow chart for solving problems.
			CO4	Summarize the techniques and innovations of Internet.
			CO5	Design webpages using HTML.
	BCS1B02	PROBLEM SOLVING USING C	CO1	Summarize the fundamentals of Problem Solving.
			CO2	Discuss the concepts of programming paradigms.
			CO3	Summarize C language constructs.
			CO4	Create C programs.
	BCS1B03	PROGRAMMING LABORATORY I: HTML AND PROGRAMMING IN C	CO1	Create programming skill techniques in HTML to help the students cope up with recent changes in the industry.
			CO2	Create programming skill techniques in C to help the students cope up with recent changes in the industry.
3	BCS3B04	DATA STRUCTURES USING C	CO1	Summarize the concept of data structures.
			CO2	Classify various data structures.
			CO3	Apply the fundamental data structures.
			CO4	Design algorithm for various operations on different data structures.
			CO5	Design algorithms for various sorting techniques.
			CO6	Design algorithms for various searching techniques.
	A11	PYTHON PROGRAMMING	CO1	Summarize Python environment.
			CO2	Illustrate the basics of Python language.
			CO3	Illustrate the use if statements and loops.
			CO4	Implement functions using sample programs.
			CO5	Implement strings and list using sample

				programs.
			CO6	Implement tuple, dictionary and set using sample programs.
	BCS3BA14	SENSORS AND TRANSDUCERS	CO1	Explain resistance, inductance and capacitance transducers.
			CO2	Discuss the concepts of temperature and pressure transducers.
			CO3	Discuss the concepts level transducers such as and flow transducers.
			CO4	Explain Electromagnetic transducers and radiation sensors.
			CO5	Explain force and torque transducers and sound transducers.
	BCS4B05	DATABASE MANAGEMENT SYSTEM AND RDBMS	CO1	Summarize the basic principles of database and database design.
			CO2	Explain the basics of RDBMS.
			CO3	Summarize the concepts of database manipulation SQL.
			CO4	Create DDL and DML queries.
			CO5	Explain PL/SQL language.
	A12	DATA COMMUNICATION AND OPTICAL FIBERS	CO1	Discuss about various encoding techniques in data communication.
			CO2	Discuss about various multiplexing techniques and their applications.
			CO3	Explain various switching techniques in computer network.
			CO4	Discuss optical fiber communication.
	BCS4BA13	MICROPROCESSORS ARCHITECTURE AND PRO.GRAMMING	CO1	Describe internal architecture of computer and 8085 Microprocessor.
			CO2	Illustrate instruction set of 8085 Microprocessor, make instruction cycle and compute programs.
			CO3	Interpret stack and interrupts of 8085 Microprocessor and also understand different programmable peripheral interface devices.
			CO4	Explain internal working of 8086/88 microprocessor.
	BCS4B06	PROGRAMMING	CO1	Create programming skill techniques in Data

		LABORATORY II: DATA STRUCTURES AND RDBMS		structures to help the students cope up with recent changes in the industry.
			CO2	Create programming skill techniques in RDBMS to help the students cope up with recent changes in the industry
	BCS5B07	COMPUTER ORGANIZATION AND ARCHITECTURE	CO1	Summarize logic gates and combinational circuits.
			CO2	Examine different types of sequential circuits, shift registers and counters.
			CO3	Discuss the basics of computer organization and architecture.
			CO4	Interpret the concept of microprogrammed control, register -stack organization and also describe different types of instructions.
			CO5	Illustrate memory and I/O organization.
	BCS5B08	JAVA PROGRAMMING	CO1	Summarize on concept of OOP.
			CO2	Analyze Java Programming Environments.
			CO3	Construct programs in Java.
			CO4	Implement GUI Application development in JAVA.
			CO5	Analyze Database connectivity in Java.
	BCS5B09	WEB PROGRAMMING USING PHP	CO1	Recall HTML5.
			CO2	Summarize the concepts of CSS3.
			CO3	Summarize javascript.
			CO4	Discuss PHP concepts and PostgreSQL connectivity.
			CO5	Analyze AJAX.
	BCS5B010	PRINCIPLES OF SOFTWARE ENGINEERING	CO1	Recall concepts of software.
			CO2	Describe engineering practices in Software development.
			CO3	Explain designing with UML.
			CO4	Illustrate coding standards and guidelines.
			CO5	Validate various Evaluation methods in Software Development.
	BCS5D01	INTRODUCTION TO COMPUTERS AND	CO1	Discuss basics of computer, its hardware and networking.

6		OFFICE AUTOMATION	CO2	Demonstrate the usage of the word processor in office automation.
			CO3	Illustrate the use of electronic spreadsheets and pivot table.
			CO4	Illustrate the use of presentation software.
	BCS6B11	ANDROID PROGRAMMING	CO1	Summarize review on concept of Android programming.
			CO2	Analyze Android Programming Environments.
			CO3	Design programs in Android.
			CO4	Analyze GUI Application development in Android platform with XML.
			CO5	Create database connectivity in Android.
	BCS6B12	OPERATING SYSTEMS	CO1	Summarize objectives & functions of Operating Systems.
			CO2	Explain processes and its life cycle.
			CO3	Classify and understand various Memory and Scheduling Algorithms.
			CO4	Check for an overall idea about the latest developments in Operating Systems.
	BCS6B13	COMPUTER NETWORKS	CO1	Summarize about transmissions in Computer Networks.
			CO2	Discuss various Protocols used in Communication.
			CO3	Describe the basics on Network Administration.
			CO4	Summarize the basic concepts on network security.
	BCS6B14	PROGRAMMING LABORATORY III: JAVA AND PHP PROGRAMMING	CO1	Create programming skill techniques in JAVA to help the students cope up with recent changes in the industry.
			CO2	Create programming skill techniques in PHP to help the students cope up with recent changes in the industry
	BCS6B15	PROGRAMMING LABORATORY IV: LAB EXAM OF ANDROID AND LINUX SHELL	CO1	Create programming skill techniques in Android to help the students cope up with recent changes in the industry.
			CO2	Create programming skill techniques in Linux and Shell programming to help the

		PROGRAMMING		students cope up with recent changes in the industry
	BCS6B17	INDUSTRIAL VISIT AND PROJECT WORK	CO1	Develop skills and knowledge and inter disciplinary concepts and methods in ways appropriate to engage in lifelong learning.
			CO2	Imagine, identify, analyze, and solve problems creatively through critical investigation using current information and technological tools and techniques specific to our domain.
	BCS6B16a	SYSTEM SOFTWARE	CO1	Summarize fundamental knowledge in system software.
			CO2	Integrate functions of various system software.
			CO3	Explain compilation process of a program.
			CO4	Analyze the case studies: LEX and YAAC
Name of the Programme				Complementary Course: Computer Science
Short Name of the Programme				Computer Science
Code of the Programme				CSC1C01
Semester	Course code	Title	CO No.	Course outcome
1	CSC1C01	COMPUTER FUNDAMENTALS (COMPLEMENTARY)	CO1	Use the concept of number systems to understand various digital codes.
			CO2	Implement the concept of Boolean algebra to design logic circuit
			CO3	Demonstrate the basic architecture of computer system
			CO4	Summarize the functions of I/O devices
			CO5	Design computer algorithms and flowcharts for solving problems.
Name of the Programme				Bachelor of Business Administration
Short Name of the Programme				BBA
Code of the Programme				CCABBA

Semester	Course code	Title	CO No.	Course outcome
1	BBA1B01	BUSINESS MANAGEMENT	CO1	Examine the concept of management & different schools of management
			CO2	Analyze the management process & functions of management
			CO3	Analyze the basic concepts of staffing, directing and controlling
			CO4	Examine modern practices of management
			CO5	Analyze the ethics and social responsibility concepts in management
	BBA1C01	MANAGERIAL ECONOMICS	CO1	Apply economic theories to business decisions.
			CO2	Use the theoretical concept of demand and elasticity of demand in practice
			CO3	Inspect the theories of production and understand the cost concept
			CO4	Determine price and output decisions under different market structures
			CO5	Use different economic forecasting methods and understand the concept of the business cycle.
2	BA2B02	FINANCIAL ACCOUNTING	CO1	Analyze the basic concepts and conventions of Financial Accounting
			CO2	Prepare the final accounts of sole proprietorship and partnership
			CO3	Practice the accounting for hire purchase and installment system
			CO4	Assess the accounts of dependent and independent branches
			CO5	Implement the accounting treatment of the issue of debentures and shares in company accounts
	BBA2B03	MARKETING MANAGEMENT	CO1	Analyze the concept, nature, scope and importance of marketing
			CO2	Inspect concept and determinants of consumer behaviour
			CO3	Analyse concept of product and product life cycle

3			CO4	Make an advertisement and write captions
			CO5	Examine the importance and stages of distribution
	BBA3A11	BASIC NUMERICAL METHODS	CO1	Apply numerical expressions and equations in the field of business
			CO2	Use matrix and determinants in the area of decision -making
			CO3	Apply progression techniques for prediction purposes
			CO4	Compare the future value and present value of cash flows
			CO5	Apply basic knowledge of statistical techniques in business
	BBA3A12	PROFESSIONAL BUSINESS SKILLS	CO1	Organize professionalism in business.
			CO2	Develop communication skills of the students.
			CO3	Integrate the concept of digitalization
			CO4	Examine the impact of IT on society
			CO5	Estimate the role of social media in the context of business
	BBA3C02	BUSINESS REGULATIONS	CO1	Justify the fundamental legal principles behind contractual agreements.
			CO2	Examine how businesses can be held liable for the actions of their employees.
			CO3	Implement the concepts in business laws concerning contract
			CO4	Analyse the legality and Statute of Fraud in contracts
			CO5	Practice the various provisions of the Consumer Protection Act and apply the available redressal avenues
	BBA3B04	CORPORATE ACCOUNTING	CO1	Analyze the concept and relevance of financial reporting standards
			CO2	Apply the principles of accounting standards
			CO3	Examine the treatment of redemption of preference shares and debentures
			CO4	Integrate the structure and components of financial statements for joint stock

				companies
			CO5	Assess the financial position of the company using accounting ratios
	BBA3B05	FINANCIAL MANAGEMENT	CO1	Justify various theories and concepts related to financial management.
			CO2	Practice analytical skills that would facilitate decision- making in Business situations.
			CO3	Apply the measures of cost of capital and financial leverage to frame long term financial policies for business
			CO4	Analyse the main ways of raising capital and their pros and cons in different circumstances
			CO5	Implement the decisions and process of financial management in a business firm
	BBA4A13	ENTREPRENEURSHIP DEVELOPMENT	CO1	Analyze who an entrepreneur is and his/her traits.
			CO2	Appraise entrepreneurial talent & traits among themselves.
			CO3	Generate business ideas and start up a business.
			CO4	Estimate the problems and give a solution for the entrepreneurs
4	BBA4A14	BANKING AND INSURANCE	CO5	Prepare a project report and tap financial assistance.
			CO1	Examine the changed role of Banking post-1991 and Reforms.
			CO2	Examine the lending and borrowing rates along with the various mandatory reserves.
			CO3	Examine the procedural compliances with the bank's functionality.
			CO4	Analyze the concept of insurance and its evolution.
			CO5	Assess the business operations and market condition in Insurance Companies
	BBA4B06	COST ACCOUNTING	CO1	Analyze the concept of cost and management accounting
			CO2	Examine and assess about material and labour

5			CO3	Analyse the concept of overhead and preparation of cost sheet
			CO4	Practice different methods of costing
			CO5	Assess different cost control techniques
	BBA4C03	CORPORATE REGULATIONS	CO1	Analyse role of corporations and corporate law in modern society
			CO2	Examine the basic rules and concepts of corporate law, such as separate legal personality, limited liability, and the duties of company directors.
			CO3	Appraise the problems, legal obligations, duties, rights and remedies of corporations
			CO4	Demonstrate the competency with the use of statutory materials and its integration with common law
			CO5	Debate about the current corporate Governance scenario and its implications in society.
	BBA4C04	QUANTITATIVE TECHNIQUES FOR BUSINESS	CO1	Examine the role of Quantitative Techniques in Business
			CO2	Compute the calculation of correlation and regression
			CO3	Demonstrate the concept of Probability
			CO4	Demonstrate different theoretical distribution
			CO5	Examine index numbers and time series analysis
	BBA5B09	OPERATIONS MANAGEMENT	CO1	Analyze different concepts of operations management
			CO2	Examine different types of process and layout
			CO3	Assess the work measurement techniques and capacity planning
			CO4	Provide knowledge about aggregate planning
			CO5	Analyze various quality control tools and processes of operations management in a business firm
	BBA5B11	FINANCIAL MARKETS AND	CO1	Recognize different aspects and components of financial systems

		INSTITUTIONS	CO2	Describe the various instruments used in the Indian Money Market
			CO3	Categorize various financial institutions under capital markets in India
			CO4	Analyse the functions of Industrial security markets in India
			CO5	To compare various instruments in derivative markets
	BBA5B08	BUSINESS RESEARCH METHODS	CO1	Demonstrate knowledge of research processes
			CO2	Report literature reviews using print and online databases
			CO3	Explain the methods of sampling
			CO4	Compare quantitative and qualitative research.
			CO5	Prepare the key elements of the research proposal/report
	BBA5B07	HUMAN RESOURCE MANAGEMENT	CO1	Discuss the traits of a Human Resource Manager.
			CO2	Organize the recruitment and selection process of employees
			CO3	Create your resume and train others if they are placed in an organization.
			CO4	Assess the employee's performance in an organization
			CO5	Describe modern trends in Human Resource Management
	BBA5B10	INCOME TAX LAW AND ACCOUNTS	CO1	Identify the basic concepts of Income tax
			CO2	Discuss exempted incomes and 80C to 80U deductions from the total income.
			CO3	Compute the total income of an individual on the concept of tax
			CO4	Assess allowance and perquisites under the head of income from salaries
			CO5	Compute income under the head of business or profession
	BBA5D01	TOURISM MANAGEMENT	CO1	Identify the meaning and definition of tourism management

6			CO2	Explain types of tourism under tourism management
			CO3	Analyse the role of transport in tourism
			CO4	Assess the role of transport accommodations in tourism
	BBA6B13	MANAGEMENT SCIENCE	CO1	Identify basic concepts of Operations Research
			CO2	Explain the meaning and objectives of linear programming
			CO3	Draw a network diagram under network analysis
			CO4	Compare expected monetary value, expected opportunity loss and expected value of perfect information under decision theories.
			CO5	Assess the North West Corner method and Least Cost Method under the transportation model
	BBA6B12	ORGANISATION BEHAVIOUR	CO1	Recognize the concept of Organizational Behaviour
			CO2	Analyse the factors affecting individual behaviour
			CO3	Create an idea about interpersonal and group behaviour
			CO4	Distinguish between various motivation and leadership theories
			CO5	Appraise the organizational change, development and stress
	BBA6B15	FINANCIAL SERVICES	CO1	Explain the meaning and importance of financial services
			CO2	Examine the merits and demerits of mutual funds
			CO3	Analyse the meaning, nature and functions of merchant banking
			CO4	Assess the merits and demerits of lease financing
	BBA6B16	INVESTMENT MANAGEMENT	CO1	Explain factors affecting investment decisions and steps in the investment process
			CO2	Analyze the return, risk and time value of money

			CO3	Discuss the meaning, importance and rationale of fundamental analysis
			CO4	Compare weak, strong and semi- strong forms of efficiency in an efficient market hypothesis
			CO5	Summarize active and passive strategies in portfolio management
	BBA6B14	PROJECT MANAGEMENT	CO1	Explain the meaning, characteristics and importance of project management
			CO2	Illustrate project financing capital structure
			CO3	Examine the working and design of a project system
			CO4	Analyse project control in terms of progress control, performance control, schedule control and cost control
			CO5	Illustrate the various rating methodologies in credit rating
Name of the Programme			Bachelor of Commerce	
Short Name of the Programme			B. Com- Finance	
Code of the Programme			CCABC	
Semester	Course code	Title	CO No.	Course outcome
1	BCM1B01	BUSINESS MANAGEMENT	CO1	Compare various schools of management and history of management
			CO2	Adapt the traits of a good manager
			CO3	Compare various theories of Motivation and discuss which one is appropriate.
			CO4	Practice ethical businesses.
			CO5	Distinguish modern management practices in business
	BCM1C01	MANAGERIAL ECONOMICS	CO1	Analyse the nature and scope of managerial economics and relationship of managerial economics with other disciplines
			CO2	Examine the various theories of consumer behavior and concepts of elasticity of demand
			CO3	Analyze and compare different types of market structure

			CO4	Assess the characteristics and the problems faced by Indian economy
			CO5	Examine the structure and direction of India's foreign trade and the role of small-scale industries in Kerala economy
2	BCM2B02	FINANCIAL ACCOUNTING	CO1	Illustrate different corporate accounting methods in single entry system
			CO2	Demonstrate the Accounting treatment of issue and forfeiture of shares in company accounts
			CO3	Implement the accounting treatment of issue of debentures in company accounts
			CO4	Examine the concepts and relevance of financial reporting standards
			CO5	Apply the principles of accounting standards
	BCM2C02	MARKETING MANAGEMENT	CO1	Determine the market and promote a product.
			CO2	Implement latest marketing trends
			CO3	Develop an advertisement and write captions
			CO4	Distinguish exaggerations and true communications in advertisements
			CO5	Justify the pros and cons of retailing and wholesaling
3	BCM3A11	BASIC NUMERICAL METHODS	CO1	Apply numerical expressions and equations in the field of business
			CO2	Use matrix and determinants in the area of decision making
			CO3	Apply progression techniques for prediction purposes
			CO4	Compare the future value and present value of cash flows
			CO5	Apply basic knowledge of statistical techniques in business
	BCM3A12	PROFESSIONAL BUSINESS SKILLS	CO1	Examine professionalism in business.
			CO2	Develop communication skills of the students.
			CO3	Assess the concept of digitalization
			CO4	Examine the impact of IT on society

4			CO5	Analyse the role of social media in the context of business
	BCM3B03	BUSINESS REGULATIONS	CO1	Examine the fundamental legal principles behind contractual agreements.
			CO2	Examine how businesses can be held liable for the actions of their employees.
			CO3	Implement the concepts in business laws with respect to contract
			CO4	Analyse the legality and Statute of Frauds in contracts
			CO5	Practice the various provisions of Consumer Protection Act and apply the available redressal avenues
	BCM3B04	CORPORATE ACCOUNTING	CO1	Examine the treatment of redemption of debentures, preference shares, buyback of shares and bonus issue
			CO2	Analyse the accounts of banking companies
			CO3	Construct the accounts of insurance companies
			CO4	Generate the consolidated financial statements of companies
			CO5	Apply the principles of accounting standards
	BCM3C03	HUMAN RESOURCES MANAGEMENT	CO1	Distinguish the traits of a Human Resource Manager.
			CO2	Organize the recruitment and selection process of employees.
			CO3	Create own resume and to train others if they are placed in an organization.
			CO4	Appraise the employee's performance in an organization.
			CO5	Monitor the feelings of the employees and counsel them.
	BCM4A13	ENTREPRENEURSHIP DEVELOPMENT	CO1	Develop the traits of an entrepreneur.
			CO2	Appraise entrepreneurial talent & traits among themselves.
			CO3	Generate business ideas and start up a business.
			CO4	Categorize the problems and give a solution

				to the entrepreneurs.
			CO5	Prepare a project report and tap financial assistance.
	BCM4A14	BANKING AND INSURANCE	CO1	Examine the changed role of Banking post 1991 & the Reforms.
			CO2	Distinguish the lending and borrowing rates along with the various mandatory reserves.
			CO3	Examine the procedural compliances by bank's functionality.
			CO4	Examine the concept of insurance and its evolution.
			CO5	Analyse the business operations and market condition in Insurance Companies.
	BCM4B05	COST ACCOUNTING	CO1	Examine the concept of cost accounting.
			CO2	Determine the different techniques of material control.
			CO3	Apply the principles and practices of labour and overheads.
			CO4	Practice different methods of costing.
			CO5	Assess different cost control techniques.
	BCM4B06	CORPORATE REGULATIONS	CO1	Analyse role of corporations and corporate law in modern society.
			CO2	Arrange the basic rules and concepts of corporate law, such as separate legal personality, limited liability, and the duties of company directors.
			CO3	Appraise the problems, legal obligations, duties, rights and remedies of corporates.
			CO4	Demonstrate the competency with the use of statutory materials and its integration with common law.
			CO5	Debate the current corporate Governance scenario and its implications in the society.
	BCM4C04	QUANTITATIVE TECHNIQUES FOR BUSINESS	CO1	Determine the role of Quantitative Techniques in Business.
			CO2	Compute correlation and regression.
			CO3	Demonstrate the concept of Probability.
			CO4	Compare different theoretical distribution.

			CO5	Apply Linear programming Models for solving business problems.
5	BCM5B07	ACCOUNTING FOR MANAGEMENT	CO1	Examine the relevance of management accounting.
			CO2	Construct Financial Statements – using Excel applications.
			CO3	Judge financial stability through ratios.
			CO4	Prepare fund flow and cash flow statements.
			CO5	Apply different marginal costing techniques in decision making.
	BCM5B08	BUSINESS RESEARCH METHODS	CO1	Demonstrate knowledge of research processes.
			CO2	Use the appropriate research designs and sampling design.
			CO3	Develop data collection instrument and apply qualitative or quantitative methods of data collection.
			CO4	Compare different scaling techniques.
			CO5	Develop a research proposal.
		FINANCIAL MARKETS AND SERVICES	CO1	Examine the role and function of the financial system in reference to the macro economy.
			CO2	Analyse the current structure and regulation of the Indian financial services sector.
			CO3	Understand the various financial services such as leasing, hire purchase, factoring, bill discounting, VC and Merchant banking.
			CO4	Identify various money market instruments in the financial system.
			CO5	Analyse role and importance of Capital Markets.
	BCM5B10	FINANCIAL MANAGEMENT	CO1	Examine various theories and concepts related to financial management.
			CO2	Adopt the analytical skills that would facilitate the decision making in Business situations.
			CO3	Apply the measures of cost of capital and financial leverage to frame long term financial policies for business.

			CO4	Analyse the main ways of raising capital and their pros and cons in different circumstances.
			CO5	Implement the decisions and process of financial management in a business firm.
	BCM5B09	INCOME TAX LAW AND ACCOUNTS	CO1	Developing a basic Knowledge about the concepts of Income tax.
			CO2	Compute Income under the head salaries.
			CO3	Determine the income under the head house property.
			CO4	Estimate the income under the head Business or Profession.
			CO5	Compute Income from Capital Gain and Other sources.
	BCM5D01	OPEN COURSE	CO1	Apply the knowledge in accounting principles
			CO2	Distinguish different types of Subsidiary books.
			CO3	Prepare Financial Statements.
6	BCM6B12	INCOME TAX AND GST	CO1	Determine the total Income and Compute tax Liability.
			CO2	Construct a proforma of Filing the income tax returns.
			CO3	Develop knowledge regarding Goods and Service Tax (GST).
			CO4	Organize the registration procedure of GST.
			CO5	Compile the knowledge about Payment of Tax, Interest, TDS, CS, Transfer of input tax credit.
	BCM6B13	AUDITING AND CORPORATE GOVERNANCE	CO1	Organize the general audit terminology.
			CO2	Practice auditing by considering the concepts of evidence, risk and materiality.
			CO3	Examine the various working papers.
			CO4	Compile the steps for performing an audit.
			CO5	Assess the auditing outcomes.
	BCM6B14	FUNDAMENTALS OF INVESTMENTS	CO1	Provide the different alternatives of investments in India.

			CO2	Examine the theoretical and practical background in the field of investments.
			CO3	Assess the intrinsic value of bonds and equities.
			CO4	Assess the portfolio performance of equities and bonds.
			CO5	Examine the role and functions of SEBI in the area of investor protection.
	BCM6B15	FINANCIAL DERIVATIVES	CO1	Organize the knowledge about financial derivatives and their features.
			CO2	Examine the relevance of derivative market in India.
			CO3	Distinguish the different types of derivative products.
			CO4	Demonstrate critical thinking, analytical and problem-solving skills in the context of derivative pricing and hedging practice.
			CO5	Implement trading strategies for profit and risk management in derivative market.
Name of the Programme			Bachelor of Computer Application	
Short Name of the Programme			BCA	
Code of the Programme			CCABCA	
Semester	Course code	Title	CO No.	Course outcome
1	BCA1B01	COMPUTER FUNDAMENTALS & HTML	CO1	Summarize the fundamentals of Computer.
			CO2	Categorize the basics of Computer organization.
			CO3	Design algorithm and draw flow chart for solving simple problems.
			CO4	Summarize the basics of Internet.
			CO5	Design webpages.
2	BCA2B02	PROBLEM SOLVING USING C	CO1	Summarize the fundamental principles of Problem-Solving aspects.
			CO2	Discuss the concept of programming.
			CO3	Summarize C language.

			CO4	Create C programs.
	BCA2B03	PROGRAMMING LABORATORY I:HTML AND PROGRAMMING IN C	CO1	Create programming skill techniques in HTML to help the students cope up with recent changes in the industry.
			CO2	Create programming skill techniques in C to help the students cope up with recent changes in the industry.
3	BCA3B04	DATA STRUCTURES USING C	CO1	Summarize the concept of data structures.
			CO2	Classify various data structures.
			CO3	Apply the fundamental data structures.
			CO4	Design algorithm for various operations on different data structures.
			CO5	Design algorithms for various sorting techniques.
			CO6	Design algorithms for various searching techniques.
	BCA3C06	THEORY OF COMPUTATION	CO1	Review mathematical preliminaries.
			CO2	Explain languages and automata.
			CO3	Discuss automata regular expression and context free language.
			CO4	Construct automation and grammar for all formal languages.
			CO5	Describe push down automata and turning machine
4	A11	PYTHON PROGRAMMING	CO1	Summarize Python environment
			CO2	Illustrate the basics of Python language
			CO3	Illustrate the use if statements and loops
			CO4	Implement functions using sample programs
			CO5	Implement strings and list using sample programs
			CO6	Implement tuple, dictionary and set using sample programs
	A14	SENSORS AND TRANSDUCERS	CO1	Explain resistance, inductance and capacitance transducers.
			CO2	Discuss the concepts of temperature and pressure transducers

			CO3	Discuss the concepts level transducers such as and flow transducer
			CO4	Explain Electromagnetic transducers and radiation sensors
			CO5	Explain force and torque transducers and sound transducers
	BCA4B05	DATABASE MANAGEMENT SYSTEM AND RDBMS	CO1	Summarize the basic principles of database and database design
			CO2	Explain the basics of RDBMS
			CO3	Summarize the concepts of database manipulation SQL
			CO4	Create DDL and DML queries
			CO5	Explain PL/SQL language
	BCA4C07	E-COMMERCE	CO1	Define basic concepts of Electronic Commerce and Indian business context
			CO2	Discuss about business models of E-commerce
			CO3	Discuss about technologies in WWW and Digital marketing
			CO4	Debate on information system security and legal and ethical issues
			CO5	Describe the various electronic payment system
	BCA4C08	COMPUTER GRAPHICS	CO1	Discuss basics of computer graphics and monitors
			CO2	Apply scan conversion of line, DDA, Bresenham circle generating and polygon filling algorithm
			CO3	Discuss Two-Dimensional Transformation.
			CO4	Discuss Window to Viewport Transformation and Clipping algorithm
			CO5	Explain Color Models and Color Applications and introduce GIMP
	BCA4B06	PROGRAMMING LABORATORY II- DATA STRUCTURES AND RDBMS	CO1	Create programming skill techniques in Data structures to help the students cope up with recent changes in the industry
			CO2	Create programming skill techniques in RDBMS to help the students cope up with

				recent changes in the industry
5	BCA5B07	COMPUTER ORGANIZATION AND ARCHITECTURE	CO1	Summarize logic gates and combinational circuits
			CO2	Examine different types of sequential circuits, shift registers and counters
			CO3	Discuss the basics of computer organization and architecture
			CO4	Interpret the concept of microprogrammed control, register -stack organization and also describe different types of instructions
			CO5	Illustrate memory and I/O organization
	BCA5B08	JAVA PROGRAMMING	CO1	Summarize on concept of OOP.
			CO2	Analyze Java Programming Environments.
			CO3	Construct programs in Java.
			CO4	Implement GUI Application development in JAVA
			CO5	Analyze Database connectivity in Java
	BCA5B09	WEB PROGRAMMING USING PHP	CO1	Recall HTML5
			CO2	Summarize the concepts of CSS3.
			CO3	Summarize JavaScript.
			CO4	Discuss PHP concepts and PostgreSQL connectivity
			CO5	Analyze AJAX
	BCA5B10	PRINCIPLES OF SOFTWARE ENGINEERING	CO1	Recall concepts of software
			CO2	Describe engineering practices in Software development.
			CO3	Explain designing with UML
			CO4	Illustrate coding standards and guidelines
			CO5	Validate various Evaluation methods in Software Development.
	BCA5D04	INTRODUCTION TO DATA ANALYSIS USING SPREAD SHEET	CO1	Discuss basics in Microsoft Excel including shortcuts, paste special options, formatting and protecting cells
			CO2	Create pivot table
			CO3	Explain Pivot table applications in analytics

			CO4	Apply Formulae and Function
6	BCA6B11	ANDROID PROGRAMMING	CO1	Summarize review on concept of Android programming.
			CO2	Analyze Android Programming Environments.
			CO3	Design programs in Android.
			CO4	Analyze GUI Application development in Android platform with XML
			CO5	Discuss database connectivity in Android
	BCA6B12	OPERATING SYSTEMS	CO1	Summarize objectives & functions of Operating Systems.
			CO2	Explain processes and its life cycle.
			CO3	Classify and understand various Memory and Scheduling Algorithms.
			CO4	Check for an overall idea about the latest developments in Operating Systems.
	BCA6B13	COMPUTER NETWORKS	CO1	Summarize about transmissions in Computer Networks.
			CO2	Discuss various Protocols used in Communication.
			CO3	Describe the basics on Network Administration.
			CO4	Summarize the basic concepts on network security
	BCA6B14	PROGRAMMING LABORATORY III- JAVA AND PHP PROGRAMMING	CO1	Create programming skill techniques in JAVA to help the students cope up with recent changes in the industry
			CO2	Create programming skill techniques in PHP to help the students cope up with recent changes in the industry
	BCA6B15	PROGRAMMING LABORATORY IV- ANDROID AND LINUX SHELL PROGRAMMING	CO1	Create programming skill techniques in Andriod to help the students cope up with recent changes in the industry
			CO2	Create programming skill techniques in Linux and Shell programming to help the students cope up with recent changes in the industry
	BCA6B17	INDUSTRIAL VISIT	CO1	Develop skills and knowledge and inter disciplinary concepts and methods in ways

		AND PROJECT WORK		appropriate to engage in lifelong learning
			CO2	Imagine, identify, analyze, and solve problems creatively through critical investigation using current information and technological tools and techniques specific to our domain
	BCA6B16A	SYSTEM SOFTWARE	CO1	Summarize fundamental knowledge in system software.
			CO2	Integrate functions of various system software
			CO3	Explain compilation process of a program.
CO4			Analyze the case studies: LEX and YAAC	
Name of the Programme			Bachelor of Commerce	
Short Name of the Programme			Professional B.Com.	
Code of the Programme			Pro CCABC	
Semester	Course code	Title	CO No.	Course outcome
1	BCP1B01	PRINCIPLES AND PRACTICE OF ACCOUNTING	CO1	Analyze Accounting Concepts, Principles Conventions and Standards.
			CO2	Assess Accounting for Bills of exchange, Hire Purchase and Instalment System.
			CO3	Compute Accounting for Consignment and Joint Ventures.
			CO4	Prepare Partnership Accounts.
			CO5	Solve Accounting for Branches and Departments.
	BCP1B02	MANAGERIAL ECONOMICS	CO1	Apply economic theories to business decisions.
			CO2	Estimate the theoretical concept of demand and elasticity of demand in practice.
			CO3	Examine the theories of production and understand the cost concepts.
			CO4	Determine price and output decisions under different market structures.
			CO5	Use different economic forecasting methods and understand the concept of a business cycle.
	BCP1B03	NUMERICAL SKILLS	CO1	Examine the matrix operations of addition,

2				multiplication and transposition and express a system of simultaneous linear equations in matrix form.
			CO2	Solve various types of equations.
			CO3	Compute terms in AP and GP.
			CO4	Determine the various methods of data presentation.
			CO5	Calculate and interpret measures of central tendency and measures of Dispersion.
	BCP2B04	FINANCIAL ACCOUNTING	CO1	Examine the knowledge of financial reporting standards.
			CO2	Inspect the knowledge about accounting standards for Assets, Liabilities and Revenue.
			CO3	Determine the skill of preparation of financial statements of Non- Corporate Entities not covered by IFRS Convergence.
			CO4	Apply knowledge about shares and debentures and preparation of financial statements of joint stock companies.
			CO5	Appraise knowledge about the presentation of Single Entity Financial Statements covered by IFRS Convergence (IAS 1 and AS 1).
	BCP2B05	BUSINESS MANAGEMENT AND ENTREPRENEURSHIP	CO1	Examine the concept of Management.
			CO2	Carryout the concept of Leadership, Motivation and Quality Standards.
			CO3	Estimate the concept of Entrepreneurship.
			CO4	Inspect the Role of entrepreneurs in economic development.
			CO5	Assess about government assistance for entrepreneur.
	BCP2B06	BUSINESS REGULATIONS	CO1	Assess the knowledge of the concept of Business Laws.
			CO2	Develop information about special contracts.
			CO3	Examine the concept of the Sale of Goods Act 1930.
			CO4	Apply the knowledge of the Competition Act 2002.

3			CO5	Practice the various sections of the Consumer Protection Act 1986.
	BCP2B07	BUSINESS COMMUNICATION	CO1	Categorize the features of Business Communication.
			CO2	Use the Layout of letters and Quotations – Tenders.
			CO3	Examine the concept, Meaning, objectives and features of report, Basic format of a report and Steps in preparing the report.
			CO4	Apply the knowledge and Importance of Business language.
			CO5	Apply the knowledge of Technology in Business Communication.
	BCP2B08	QUANTITATIVE TECHNIQUES FOR BUSINESS	CO1	Carryout the applications of Quantitative Techniques in Business.
			CO2	Provide exposure to the calculation of measures of correlation.
			CO3	Examine the concept of Probability and knowledge about Theoretical Distribution.
			CO4	Use the knowledge about Sampling and estimation.
			CO5	Appraise the knowledge about Testing of Hypothesis, Variance & X2 Test.
	BCP3B09	CORPORATE ACCOUNTING	CO1	Prepare the accounts for the redemption of debentures and shares and also identify knowledge of financial reporting standards of government grant, lease, and share-based payments.
			CO2	Prepare financial statements of group companies and preparation of consolidated statements.
			CO3	Prepare financial statements of banking entities.
			CO4	Prepare financial statements of life insurance companies and general insurance companies.
			CO5	Apply the concept of a double account system and prepare financial statements of electricity companies.
	BCP3B10	INCOME TAX LAW AND PRACTICE	CO1	Determine the Knowledge about basic concepts of Income tax.

			CO2	Compute Income under the head salary and House property.
			CO3	Compute Income under the head of Business or Profession.
			CO4	Compute Income under the head capital gain and other sources.
			CO5	Determine the total Income and Compute tax Liability.
	BCP3B11	COST ACCOUNTING	CO1	Use the various concepts, elements of cost and techniques of costing.
			CO2	Analyze the procedure of Inventory management and determine the stock levels and prices of materials.
			CO3	Inspect the importance of labour cost and Compute labour cost.
			CO4	Practice allocation, apportionment and absorption of overheads.
			CO5	Estimate cost book keeping.
	BCP3B12	MARKETING MANAGEMENT	CO1	Determine the concept of Marketing Management.
			CO2	Detect the concept of marketing mix and pricing policies.
			CO3	Examine the importance and levels of marketing Channels.
			CO4	Apply the concepts in the Promotion mix
			CO5	Conclude an idea about the developments and issues in marketing.
	BCP3B13	CORPORATE REGULATIONS	CO1	Determine the features of the Companies Act 2013 and understand different types of companies.
			CO2	Practice the procedure of the formation of a company and list the documents related to formation of a company.
			CO3	Analyze the raising of capital by companies in compliance with SEBI guidelines.
			CO4	Estimate corporate management and governance.
			CO5	Determine the meaning and modes of winding up in a company.

4	BCP4B14	APPLIED COST ACCOUNTING	CO1	Analyze the various costing methods and study job and batch costs.
			CO2	Inspect Contract costs and prepare contract accounts.
			CO3	Practice Process costing and study its applications.
			CO4	Make an idea about Standard costing, types of standards and variance analysis.
			CO5	Assess Budgeting and Budgetary control.
	BCP4B15	BUSINESS AND CORPORATE TAXATION	CO1	Compute the Total Income of Hindu Undivided Family and Individual.
			CO2	Compute the total income of Firms and AOP.
			CO3	Compute the total income of Firms and AOP.
			CO4	Determine the Total Income of the Trust.
			CO5	Analyze the procedure for assessment.
	BCP4B16	INDUSTRIAL & LABOUR REGULATIONS	CO1	Make an idea about the concept of Factories Act 1948 & Industrial Disputes Act 1947.
			CO2	Compile information about the ESI Act, ESI corporation, and Minimum Wages Act.
			CO3	Examine the Concepts in Payment of Bonus Act 1965 and Payment of Gratuity Act 1972.
			CO4	Apply the knowledge about the Employees Provident Fund Act, Miscellaneous Provisions Act 1952 & Maternity Benefit Act 1961.
			CO5	Apply the knowledge about the various sections of the Trade Unions Act 1926.
	BCP4B17	HUMAN RESOURCE MANAGEMENT	CO1	Practice the concept of human resource management and emerging trends in HRM.
			CO2	Examine the concepts of HR planning, recruitment and selection methods used in various institutions.
			CO3	Detect the different methods of training available to employees.
			CO4	Apply knowledge about the concept of career planning and performance appraisal.
			CO5	Analyze the knowledge about the components of remuneration available, grievance redressal mechanism available in

5				firms and causes of absenteeism and disciplinary actions.
	BCP4B18	E - COMMERCE MANAGEMENT	CO1	Determine the concept of E-commerce and its significance.
			CO2	Demonstrate a clear understanding of the Business models of E-commerce.
			CO3	Carry out the designing of E-commerce websites and Internet advertising.
			CO4	Examine the various E-Payment systems available in the market.
			CO5	Examine the legal and ethical issues in E-commerce.
	BCP5B19	ACCOUNTING FOR MANAGERIAL DECISION	CO1	Determine the applications of management accounting and different branches of accounting.
			CO2	Analyse the different components of financial statements of corporate entities
			CO3	Analyse and interpret financial statements of corporate entities
			CO4	Prepare fund flow, cash flow statements, and management of working capital in an effective way.
			CO5	Make decisions under those circumstances where the principles of CVP analysis can be effectively implemented.
	BCP5B20	FINANCIAL MANAGEMENT	CO1	Demonstrate the concepts, tools, and practices of financial management and apply the techniques of the time value of money.
			CO2	Examine different sources of finance.
			CO3	Examine the capital structure patterns and compute cost of capital, risk and various types of leverages.
			CO4	Analyze the techniques of project evaluation and apply the techniques.
			CO5	Inspect how to manage working capital.
	BCP5B21	AUDITING AND ASSURANCE	CO1	Detect the nature and concepts of Auditing
			CO2	Examine the Auditing Standards.
			CO3	Make an idea about the Audit procedure and Internal control system

			CO4	Assess about audit of limited companies.
			CO5	Apply the practical aspects of auditing.
	BCP5B21	FINANCIAL MARKETS AND SERVICES	CO1	Analyze the basics of a Financial System with reference to meaning and importance, roles and functions, components and financial services.
			CO2	Demonstrate the Money Market with specific reference to the Indian money market.
			CO3	Examine Capital Market, its relevance, features, evolution and functioning.
			CO4	Assess various financial intermediaries and their services.
			CO5	Demonstrate financial regulation with reference to Indian Financial Regulators including RBI and SEBI.
	BCP5B23	BUSINESS RESEARCH METHODS	CO1	Examine the term research, various approaches related to theory building and types of research.
			CO2	Examine exploratory research, and various methods related to exploratory research and show how to conduct case studies.
			CO3	Demonstrate and show an appropriate research design and explain how to conduct data collection.
			CO4	Assess various levels of measurement, different scaling techniques and describe various means of survey data collection.
			CO5	Inspect how to conduct data analysis and demonstrate the report writing stages.
	BCP5B24	INFORMATION TECHNOLOGY FOR BUSINESS	CO1	Examine the concepts of Information Technology.
			CO2	Examine the Networking system and Telecommunication Processors.
			CO3	Practice the knowledge about the spreadsheet and database management system.
			CO4	Examine the Modern communicational Technologies.
			CO5	Examine Management Information System.
6	BCP6B25	STRATEGIC	CO1	Analyze major theories, background work, concepts and research output in the field of

		MANAGEMENT		strategic management.
			CO2	Demonstrate a clear understanding of the concepts, tools & techniques used by executives in developing and executing strategies and will appreciate its integrative and interdisciplinary nature.
			CO3	Demonstrate effective application of concepts, tools & techniques to practical situations for diagnosing and solving organizational problems.
			CO4	Demonstrate the capability of making their own decisions in a dynamic business landscape.
			CO5	Develop their capacity to think and execute strategically.
	BCP6B26	COMPUTERIZED ACCOUNTING	CO1	Examine concepts of computerised accounting and also about the Tally interface.
			CO2	Provide exposure on recording the inventory -related transactions in Tally.
			CO3	Prepare the final account using Tally ERP 9.
			CO4	Assess knowledge about the applications of Tally in cost and management accounting.
			CO5	Examine the concepts GST & VAT and its application in Tally.
	BCP6B27	INDIRECT TAXES LAW AND PRACTICE	CO1	Examine the importance of Indirect Taxes in the Indian economy.
			CO2	Provide basic knowledge about registration, tax invoice and returns in GST.
			CO3	Assess the knowledge about Payment of Tax, Interest, TDS, TCS, Transfer of input tax credit.
			CO4	Examine knowledge about the fundamental principles of customs duty, Functions of Customs authorities, Export & Import Procedures, and baggage rules.
			CO5	Examine knowledge about clearance of goods, warehousing, duty drawback, provisions of prohibited goods etc.
	BCP6B28	BANKING AND INSURANCE	CO1	Analyze the changed role of Banking post 1991 Reforms.

		MANAGEMENT	CO2	Comparing the lending and borrowing rates along with the various mandatory reserves.
			CO3	Assess the procedural compliances by the bank's functionality.
			CO4	Examine the concept of insurance and its evolution.
			CO5	Examine the business operations and market conditions in Insurance Companies.
	BCP6B29	CORPORATE GOVERNANCE AND BUSINESS ETHICS	CO1	Examine the importance of Corporate Governance.
			CO2	Analyze the major corporate governance failures and its reasons.
			CO3	Determine the concept of Business Ethics.
			CO4	Apply knowledge about the Corporate Social Responsibility.
			CO5	Develop knowledge about the ethical practices of Business.
	BCP630	PROJECT REPORT		
Name of the Programme				Bachelor of Commerce
Short Name of the Programme				B.Com. Taxation
Code of the Programme				CCABCM
Semester	Course code	Title	CO No.	Course outcome
1	BCM1B01	BUSINESS MANAGEMENT	CO1	Compare various schools of management and history of management
			CO2	Adapt the traits of a good manager
			CO3	Compare various theories of Motivation and discuss which one is appropriate.
			CO4	Practice ethical businesses.
			CO5	Distinguish modern management practices in business
	BCM1C01	MANAGERIAL ECONOMICS	CO1	Analyse the nature and scope of managerial economics and relationship of managerial economics with other disciplines
			CO2	Examine the various theories of consumer behavior and concepts of elasticity of demand

			CO3	Analyze and compare different types of market structure
			CO4	Assess the characteristics and the problems faced by Indian economy
			CO5	Examine the structure and direction of India's foreign trade and the role of small-scale industries in Kerala economy
2	BCM2C02	MARKETING MANAGEMENT	CO1	Illustrate different corporate accounting methods in single entry system
			CO2	Demonstrate the Accounting treatment of issue and forfeiture of shares in company accounts
			CO3	Implement the accounting treatment of issue of debentures in company accounts
			CO4	Examine the concepts and relevance of financial reporting standards
			CO5	Apply the principles of accounting standards
3	BCM3A11	BASIC NUMERICAL METHODS	CO1	Determine the market and promote a product.
			CO2	Implement latest marketing trends
			CO3	Develop an advertisement and write captions
			CO4	Distinguish exaggerations and true communications in advertisements
			CO5	Justify the pros and cons of retailing and wholesaling
	BCM3A12	PROFESSIONAL BUSINESS SKILLS	CO1	Apply numerical expressions and equations in the field of business
			CO2	Use matrix and determinants in the area of decision making
			CO3	Apply progression techniques for prediction purposes
			CO4	Compare the future value and present value of cash flows
			CO5	Apply basic knowledge of statistical techniques in business
	BCM3B03	BUSINESS REGULATIONS	CO1	Examine professionalism in business.
			CO2	Develop communication skills of the students.
			CO3	Assess the concept of digitalization

			CO4	Examine the impact of IT on society
			CO5	Analyse the role of social media in the context of business
	BCM3B04	CORPORATE ACCOUNTING	CO1	Examine the fundamental legal principles behind contractual agreements.
			CO2	Examine how businesses can be held liable for the actions of their employees.
			CO3	Implement the concepts in business laws with respect to contract
			CO4	Analyse the legality and Statute of Frauds in contracts
			CO5	Practice the various provisions of Consumer Protection Act and apply the available redressal avenues
	BCM3C03	HUMAN RESOURCES MANAGEMENT	CO1	Examine the treatment of redemption of debentures, preference shares, buyback of shares and bonus issue
			CO2	Analyse the accounts of banking companies
			CO3	Construct the accounts of insurance companies
			CO4	Generate the consolidated financial statements of companies
			CO5	Apply the principles of accounting standards
4	BCM4A13	ENTREPRENEURSHIP DEVELOPMENT	CO1	Distinguish the traits of a Human Resource Manager.
			CO2	Organize the recruitment and selection process of employees
			CO3	Create own resume and to train others if they are placed in an organization.
			CO4	Appraise the employee's performance in an organization
			CO5	Monitor the feelings of the employees and counsel them
	BCM4A14	BANKING AND INSURANCE	CO1	Develop the traits of an entrepreneur.
			CO2	Appraise entrepreneurial talent & traits among themselves.
			CO3	Generate business ideas and start up a business.

			CO4	Categorize the problems and give a solution to the entrepreneurs.
			CO5	Prepare a project report and tap financial assistance.
	BCM4B05	COST ACCOUNTING	CO1	Examine the changed role of Banking post 1991 & the Reforms.
			CO2	Distinguish the lending and borrowing rates along with the various mandatory reserves.
			CO3	Examine the procedural compliances by bank's functionality.
			CO4	Examine the concept of insurance and its evolution.
			CO5	Analyse the business operations and market condition in Insurance Companies.
	BCM4B06	CORPORATE REGULATIONS	CO1	Examine the concept of cost accounting.
			CO2	Determine the different techniques of material control.
			CO3	Apply the principles and practices of labour and overheads.
			CO4	Practice different methods of costing.
			CO5	Assess different cost control techniques.
	BCM4C04	QUANTITATIVE TECHNIQUES FOR BUSINESS	CO1	Analyse role of corporations and corporate law in modern society.
			CO2	Arrange the basic rules and concepts of corporate law, such as separate legal personality, limited liability, and the duties of company directors.
			CO3	Appraise the problems, legal obligations, duties, rights and remedies of corporates.
			CO4	Demonstrate the competency with the use of statutory materials and its integration with common law.
			CO5	Debate the current corporate Governance scenario and its implications in the society.
5	BCM5B07	ACCOUNTING FOR MANAGEMENT	CO1	Determine the role of Quantitative Techniques in Business.
			CO2	Compute correlation and regression.
			CO3	Demonstrate the concept of Probability.

			CO4	Compare different theoretical distribution.
			CO5	Apply Linear programming Models for solving business problems.
			CO1	Examine the relevance of management accounting.
			CO2	Construct Financial Statements – using Excel applications.
			CO3	Judge financial stability through ratios.
			CO4	Prepare fund flow and cash flow statements.
			CO5	Apply different marginal costing techniques in decision making.
	BCM5B08	BUSINESS RESEARCH METHODS	CO1	Demonstrate knowledge of research processes.
			CO2	Use the appropriate research designs and sampling design.
			CO3	Develop data collection instrument and apply qualitative or quantitative methods of data collection.
			CO4	Compare different scaling techniques.
			CO5	Develop a research proposal.
	BCM5B10	PRINCIPLES OF TAXATION	CO1	Explain the basics of principles of taxation.
			CO2	Illustrate the basic classification of taxes.
			CO3	Summarize the impact and incidence of taxation.
			CO4	Describe the concept of Double Taxation.
			CO5	Explain constitutional provisions relating to taxes.
	BCM5B11	INDIRECT TAXES AND LAW AND PRACTICE	CO1	Discuss the importance of indirect taxes in the Indian Economy.
			CO2	Describe the basic knowledge about Goods and Services Tax.
			CO3	Adapt the practical assessment of tax burden.
			CO4	Summarize the concept of Customs Duty.
			CO5	Explain the basics of Arrival/ Departure and clearance of goods.
	BCM5B09	INCOME TAX LAW	CO1	Developing a basic Knowledge about the

		AND ACCOUNTS		concepts of Income tax.
			CO2	Compute Income under the head salaries.
			CO3	Determine the income under the head house property
			CO4	Estimate the income under the head Business or Profession
			CO5	Compute Income from Capital Gain and Other sources
	BCM5D01	OPEN COURSE	CO1	Apply the knowledge in accounting principles
			CO2	Distinguish different types of Subsidiary books
			CO3	Prepare Financial Statements
6	BCM6B12	INCOME TAX AND GST	CO1	Determine the total Income and Compute tax Liability.
			CO2	Construct a proforma of Filing the income tax returns.
			CO3	Develop knowledge regarding Goods and Service Tax (GST).
			CO4	Organize the registration procedure of GST
			CO5	Compile the knowledge about Payment of Tax, Interest, TDS, TCS, Transfer of input tax credit.
	BCM6B13	AUDITING AND CORPORATE GOVERNANCE	CO1	Organize the general audit terminology.
			CO2	Practice auditing by considering the concepts of evidence, risk and materiality.
			CO3	Examine the various working papers.
			CO4	Compile the steps for performing an audit.
			CO5	Assess the auditing outcomes.
	BCM6B14	INCOME TAX ASSESSMENT	CO1	Examine basics of computation of taxable income.
			CO2	Assess the computation of taxable income and tax liabilities of Individuals and Hindu Undivided Family.
			CO3	Generate the computation of taxable income and tax liabilities of Firms and AOP/BOI.
			CO4	Generate the computation of taxable income

				and tax liabilities of Co-operative societies.
			CO5	Examine the procedure for filing of Income Tax Returns.
	BCM6B15	CORPORATE TAXATION AND TAX PLANNING	CO1	Examine the procedure for filing of Income Tax Returns.
			CO2	Demonstrate the assessment of Companies.
			CO3	Analyse the computation of taxable income and tax liabilities of Companies.
			CO4	Examine the basic knowledge about tax planning and Tax management under Income Tax Law.
CO5	Demonstrate the tax planning for Specific Management Decisions			
Name of the Programme			Bachelor of Science, Zoology	
Short Name of the Programme			B.Sc. Zoology	
Code of the Programme			CCASZL	
Semester	Course code	Title	CO No.	Course outcome
1	ZOL1B01T	ANIMAL DIVERSITY: NON-CHORDATA PART -I	CO1	Examine the principles of classification and nomenclature of living beings.
			CO2	Analyse the characteristics and classification of Protists and describe the ultrastructure of Paramecium.
			CO3	Analyse the characteristics and classification of Phylum Porifera and Describe the characteristics of Mesozoa.
			CO4	Analyze the characteristics and classification of Phylum Cnidaria, Ctenophora and Platyhelminthes and Describe the structural organization of Obelia.
			CO5	Compare the characteristics of Phylum Nematoda, Rotifera and Gastrotricha.
2	ZOL2B02T	ANIMAL DIVERSITY: NON-CHORDATA PART -II	CO1	Analyse the characteristic features and classification of Phylum Annelida as well as describe the morphology and structural organization of Neanthes.
			CO2	Describe the distribution, peculiarities and affinities of Phylum Onychophora.
			CO3	Analyse the features and classification of

				Phylum Arthropoda and describe the morphology and structural organization of <i>Penaeus</i> .
			CO4	Analyse the characteristic features and classification of Phylum Mollusca and explain the structural organization of <i>Pila globose</i> .
			CO5	Analyse the salient features and classification of Phylum Echinodermata and Describe the salient features and affinities of Phyla Hemichordata, Phoronida, Ectoprocta and Echiura.
3	ZOL3B03T	ANIMAL DIVERSITY: CHORDATA PART -I	CO1	Analyzing the characteristics of chordates and outline classification of the phylum Chordata; salient features and classification of subphylum Urochordata, Cephalochordata and Vertebrata.
			CO2	Analyzing the salient features and the characteristics of division Agnatha and classification of Gnathostomata.
			CO3	Make the salient features of superclass Pisces and illustrate its classification down to orders and the morphology and structural organization of <i>Mugil cephalus</i> .
			CO4	Justify the salient features and affinities of class Amphibia and its classification up to orders; explain the morphology and organ systems of <i>Hoplobatrachus tigerinus</i> .
			CO5	Analyse the characteristic features of the class Reptilia and its classification down to orders; describe the morphology and organ systems of <i>Calotes versicolor</i> .
4	ZOL4B04T	ANIMAL DIVERSITY: CHORDATA PART -II	CO1	Describe the classification of class Aves down to orders, list the salient features of each order with suitable examples.
			CO2	Illustrate the external characters and functional systems of <i>Columba livia</i> .
			CO3	Analyse the salient features and classification of class Mammalia.
			CO4	Interpret the external characters and functional systems of <i>Oryctolagus cuniculus</i> .
			CO5	Compare the circulatory, excretory and

				nervous systems of vertebrates.
5	ZOL5B06T	CELL BIOLOGY AND GENETICS	CO1	Describe the principles of various light, electron and probe microscopes and illustrate the histological and histochemical processing. of tissues for microscopy.
			CO2	Explain the ultrastructure of cell membrane other cell organelles such as mitochondria, lysosome, cytoskeletal elements, interphase nucleus and chromosome.
			CO3	Explain cell cycle, different types of cell division, ageing, apoptosis and malignant transformation of cell.
			CO4	Describe gene interactions and multiple alleles.
			CO5	Explain linkage, Recombination and sex determination and Describe mutations, human genetics and genetic counselling.
	ZOL5B07T	BIOTECHNOLOGY, MICROBIOLOGY AND IMMUNOLOGY	CO1	Analyze the steps in genetic engineering and animal cell culture. List the applications of biotechnology.
			CO2	Analyze transfection methods, transgenic animals and ethical issues of transgenic animals.
			CO3	Examine the biological diversity of microbial forms and the various techniques for handling microbes in the laboratory.
			CO4	Analyze the basic structure and life cycle of bacteria and virus and industrial and medical importance of microorganisms.
			CO5	Justify the major cells, organs and types of the immune system; describe antigen, antibody, immunity, MHC and autoimmunity.
	ZOL5B08T	BIOCHEMISTRY AND MOLECULAR BIOLOGY	CO1	Analyzing the elements of biological importance and the non-covalent interactions that stabilize biomolecules, Review the classification, types, structure, reactions and biological roles of carbohydrates, and diabetes Type I and II.
			CO2	Developing the idea of the classification and functions of lipids and fatty acids; chemistry and structure of nucleic acids and sequencing of DNA, Review the classification, nomenclature and properties of enzymes;

				enzyme action, co-enzymes, cofactors, isozymes, ribozymes and allosteric enzymes, Analyze glycolysis, Kreb's cycle, glycogenesis, glycogenolysis, gluconeogenesis, HMP pathway; amino acid and fatty acid oxidation and oxidative phosphorylation
			CO3	Analyzing the mechanism of DNA duplication and the role of enzymes, restate in own words the concept of gene and gene expression; genetic code and wobble hypothesis, Illustrate the mechanism of transcription and post-transcriptional modification of hnRNA.
			CO4	Developing the processes of translation and post-translational modification and targeting of peptides,
			CO5	Analyzing the regulation of trp operon, C-value, repetitive DNA, satellite DNA, selfish DNA, overlapping genes, pseudogenes, cryptic genes, transposons and retrotransposons, Draw the structure and life cycle of bacteriophages and the gene transfer mechanisms in bacteria.
	ZOL5B09T	METHODOLOGY IN SCIENCE, BIOSTATISTICS AND BIOINFORMATICS	CO1	Compile the applications of science and scientific methods in conducting experiments, formulating hypothesis and the need for practicing ethics in science
			CO2	Analyse the Scope and role of statistics; methods and procedures of sampling; Construction of tables, charts and graphs.
			CO3	Apply central tendency and measures of dispersion and application of its knowledge on hypothesis testing as well as in problem solving.
			CO4	Examine major biological databases, search engines, importance of sequence alignment using BLAST, FASTA, CLUSTAL W, CLUSTAL X and its applications in phylogenetic tree construction
			CO5	Analyse genome sequencing technologies, functional genomics, proteomic technologies and molecular docking and drug design.
	ZOL5D01T	REPRODUCTIVE HEALTH AND SEX	CO1	Constructing an understanding of reproductive health, and the importance of

6		EDUCATION		sex education for teens and youth and assessing the chromosomal mechanism of sex determination and sex chromosomal anomalies.
			CO2	Examining the structural and functional features of human reproductive system, fertilization, implantation, pregnancy, gestation, placenta, parturition and lactation
			CO3	Creating the scope of reproductive technologies in infertility management and assisted reproductive techniques
			CO4	Analyzing the different methods of prenatal diagnosis and associated ethical issues and generates the idea of different methods of fertility control
			CO5	Creating a notion of symptoms, mode of transmission, diagnosis and treatment of different sexually transmitted diseases and their socio-economic dimensions along with sexual orientation, sexual abuse, myths and ethical aspects of sex
	ZOL6B10T-	PHYSIOLOGY AND ENDOCRINOLOGY	CO1	Imagine the regulation of digestion in man, nutrition in pregnancy and infancy, nutritional disorders, balanced diet, starvation, fasting and obesity.
			CO2	Examine the mechanism of transport, exchange of respiratory gases, its neurophysiological control in mammals, blood physiology and types of heart
			CO3	Inspect osmoregulation, excretion in animals, hormonal disorders in man and skeletal muscle physiology
			CO4	Analyse nerve physiology, significance of bioluminescence and functions of electric organs
			CO5	Analyse invertebrate neuro-endocrine organs, their hormones, vertebrate endocrine glands, their functions and the concept of neurosecretion
	ZOL6B11T	REPRODUCTIVE AND DEVELOPEMENTAL BIOLOGY	CO1	Analyse human reproductive system
			CO2	Describe reproductive technologies
			CO3	Illustrate basic concepts in developmental

				biology
			CO4	Analyse various developmental stages
			CO5	Describe experimental embryology
	ZOL6B12T	ENVIRONMENTAL AND CONSERVATION BIOLOGY	CO1	Analyse basic concepts in ecosystem
			CO2	Describe biogeochemical cycles
			CO3	Illustrate population, community and habitat
			CO4	Analyse population interactions
			CO5	Describe conservation biology and toxicology
	ZOL6B13T -	ETHOLOGY, EVOLUTION AND ZOOGEOGRAPHY	CO1	Describe the patterns and mechanisms of animal behaviour.
			CO2	Illustrate biological rhythms and the chemical basis of communication.
			CO3	Identify major evolutionary transitions over time, and explain the tools and evidences that support current hypotheses of the history of life on earth.
			CO4	Describe the evidences and various theories of evolution and recognize the raw materials for evolution and review the major events in human evolution.
			CO5	Explain ecological foundations of distribution and abundance of species, their changes over time, factors affecting animal distribution, zoogeographic realms and insular fauna
	ZOL6B14(E) 02T	AQUACULTURE, ANIMAL HUSBANDRY AND POULTRY SCIENCE	CO1	Compare aquaculture and the process of prawn, mussel and pearl culture.
			CO2	Analyse the methodology of pisciculture and understand common culture fishes and ornamental fishes.
			CO3	Analyse major fishing crafts and gear and enumerate fish utilization and preservation
			CO4	Compare the poultry rearing techniques and describe major breeds of fowl.
			CO5	Examine the major breeds of cattle, cattle feeds and diseases of cattle; discuss the advancements in dairy sciences
Name of the Programme			COMPLEMENTARY COURSE-BOTANY	
Short Name of the Programme			COMPLEMENTARY COURSE-BOTANY	

Semester	Course code	TITLE	CO No.	Course outcome
1	BOT1C01T	COMPLEMENTARY COURSE: 1	CO1	Distinguish the types, structure and functions of plant tissues.
			CO2	Demonstrate primary and secondary (normal and anomalous) structures of plant organs.
			CO3	Distinguish plant organs by observing anatomical features.
			CO4	Determine plant identity based on its anatomy
			CO5	Adapt the histochemical techniques in laboratory works.
2	BOT2C02T	COMPLEMENTARY COURSE: 2 CRYPTOGAMS, GYMNOSPERMS AND PLANT PATHOLOGY	CO1	Analyze the role of the lower plants in the process of evolution
			CO2	Demonstrate the ecological significance of lower plants
			CO3	Demonstrate the economic importance of lower plants
			CO4	Determine the morphological, anatomical and reproductive characters of lower plants
			CO5	Determine plant diseases and take remedial measures to control them
3	BOT3C03T	COMPLEMENTARY COURSE: 3 MORPHOLOGY, SYSTEMATIC BOTANY, ECONOMIC BOTANY, PLANT BREEDING AND HORTICULTURE	CO1	Examine the diverse morphology of angiosperms
			CO2	Demonstrate and classify plants based on taxonomic principles and make scientific illustrations of vegetative and reproductive structures of plants
			CO3	Examine the economically important plants
			CO4	Determine the basic principles of plant breeding
			CO5	Apply various horticultural practices in the field
4	BOT4C04T	COMPLEMENTARY COURSE: 4 PLANT PHYSIOLOGY, ECOLOGY AND GENETICS	CO1	Determine the physiological processes in plants
			CO2	Analyze the photosynthesis and transpiration processes in plants
			CO3	Analyze the process of growth in plants

			CO4	Determine the basic principles of heredity and variation in genetics.
			CO5	Determine the importance of ecology and spread awareness of the necessity of conservation of biodiversity and natural resources
	BOT4C05 P -	COMPLEMENTARY COURSE: 5 ANGIOSPERM ANATOMY, MICROTECHNIQUE, CRYPTOGAMS, GYMNOSPERMS, PLANT PATHOLOGY, MORPHOLOGY, SYSTEMATIC BOTANY, PLANT PHYSIOLOGY, ECOLOGY, GENETICS, ECONOMIC BOTANY, PLANT BREEDING AND HORTICULTURE	CO1	Determine the anatomy of higher and lower plants and utilize them in identifying plants
			CO2	Determine the anatomy, morphology, reproduction and life cycle of cryptogams and gymnosperms
			CO3	Analyse taxonomic and morphological characters of Angiosperms to evaluate and classify according to systematic position
			CO4	Determine the experiments in plant physiology
			CO5	Solve problems related to classical genetics
Name of the Programme			Bachelor of Science, Food Technology	
Short Name of the Programme			B.Sc. FT	
Code of the Programme			CCASFT	
Semester	Course code	Title	CO No.	Course outcome
1	FTL 1 B 01	PERSPECTIVES OF FOOD SCIENCE & TECHNOLOGY	CO1	Create a basic knowledge of food science and technology.
			CO2	Analyze the structure and composition of different types of foods.
			CO3	Assess the basics of quality assessment, nutritional factors, and healthy foods.
			CO4	Develop a Knowledge in Food additives (Preservatives, colors and improvers).
			CO5	Create an idea about journals, research centers and leading industries.
	FTL 1 B 02 P2	PERSPECTIVES OF FOOD SCIENCE AND TECHNOLOGY	CO1	Assess the knowledge for the preparation of reagents and standard solutions
			CO2	Categorize the significance of qualitative tests

			CO3	Analyze the skill to find out moisture, acidity and TSS.
2	FTL 2 B 03	FOOD MICROBIOLOGY	CO1	Create knowledge on the history of microbiology.
			CO2	Create an idea about types of microorganisms and their morphology
			CO3	Compare the basic microbial structure, function and study the comparative characteristics of prokaryotes and eukaryotes.
			CO4	Generate the concept of growth and reproduction of bacteria, the relevance of microscopy.
			CO5	Categorize various accessories for microbiology Practical's
	FTL 2 B 04 P	-FOOD MICROBIOLOGY-1	CO1	Develop skills to stain bacterial cells.
			CO2	Categorize basic microbiological laboratory equipment and techniques
			CO3	Organize various accessories for microbiology practical
3	FTL 3 B 05	FOOD ENGINEERING	CO1	Detect the mechanisms by which various unit operations in food processing optimize food quality and extend shelf life of foods.
			CO2	Analyze the principles of heat and mass transfer phenomena.
			CO3	Generate the theories of refrigeration and freezing.
			CO4	Compare the rheological characteristics of foods.
			CO5	Create the working principle of heat exchangers, evaporators, driers, and boilers.
	FTL 3 B 06 P	FOOD PROCESSING AND PRESERVATION	CO1	Develop proficiency skills in food processing operations
			CO2	Assess the general sensory evaluation of foods
			CO3	Categorize the different processing operations like blanching and canning
4	FTL 4 B 07	FOOD CHEMISTRY & ANALYTICAL INSTRUMENTATION	CO1	Compare various Instrumental analyses of foods needed for statutory requirements.
			CO2	Analyze the constituents of foods which are

5				always amenable during processing.
			CO3	Develop knowledge of minor constituents is useful to get the organoleptic character of foods.
			CO4	Compare the classification and chemistry of major and minor components of food.
			CO5	Explain the relation between chemistry of food components and their functions
	FTL 4 B 08	FOOD CHEMISTRY & ANALYTICAL INSTRUMENTATION	CO1	Create a deeper understanding on carbohydrates, proteins, lipids, fats, vitamins and minerals
			CO2	Develop skills in the determination of qualitative and quantitative methods of food materials
			CO3	Create knowledge for nutritional values of food molecules
	FTL 5 B 09	FOOD MICROBIOLOGY-II	CO1	Assess different microbiological techniques for the isolation of pure culture of Microorganisms
			CO2	Categorize various spoilage organisms, growth factors and control.
			CO3	Distinguish the effect of fermentation in food production and how it influences the microbiological quality and status of food product.
			CO4	Analyze the microbiological safety of milk and water
			CO5	Assess the methods of isolation and culturing of microorganisms.
	FTL 5 B 10-	CEREALS, PULSES AND OIL SEEDS TECHNOLOGY	CO1	Formulate milling technologies for rice and wheat.
			CO2	Analyze baking technologies of bread, cake, biscuit and confectionary.
			CO3	Categorize the processing methods of pulses, nuts and oilseeds.
			CO4	Develop a detailed description of millet chemistry
			CO5	Make more knowledge on major and minor millets in India.

6	FTL 5 B 11	-FOOD PRESERVATION & PACKAGING TECHNOLOGY	CO1	Categorize the technologies of thermal processing & Drying.
			CO2	Analyze the importance of low temperature preservation & irradiation.
			CO3	Compare various chemical preservatives and Fermentation methods.
			CO4	Generate preservation techniques with recent and advanced ones
			CO5	Design the fundamentals of Packaging technologies.
	FTL 5 B 12 P	CEREALS, PULSES & OIL SEEDS TECHNOLOGY	CO1	Assess the processing techniques of cereals and estimate quality parameters
			CO2	Categorize the basic composition and structure of food grains
			CO3	Create knowledge of the processing of food grains into value-added products
	FTL 5B 13 P	FOOD MICROBIOLOGY -II	CO1	Analyse the techniques to detect quantify and identify microorganisms in food.
			CO2	Monitor various types of food contaminations and food infestations.
			CO3	Generate a knowledge in terms of media preparation, microscopy and staining procedure
	FT 5 B 14 P	ANALYSIS OF FOODS	CO1	Create laboratory techniques for solvent extraction
			CO2	Create knowledge about reducing sugar and total reducing sugar
			CO3	Construct a clear understanding of analytical procedures used to analyze food components.
	FTL 6 B 15	E-DAIRY TECHNOLOGY	CO1	Categorize the components of milk.
			CO2	Analyze the importance of the physicochemical properties of milk.
			CO3	Construct the importance of dairy processing technologies and equipment used.
			CO4	Make more knowledge of different types of milk markets and fermented milk products.
			CO5	Create more information on CIP methods.
	FTL 6 B 16	TECHNOLOGY OF	CO1	Hypothesize the importance of safe slaughtering methods and their significance

		ANIMAL FOODS		in food safety.
			CO2	Create innovative ideas for the production of various products.
			CO3	Assess the methods of preservation of different animal products based on their shelf life
			CO4	Distinguish the Quality parameters of eggs and the preservation methods from ancient to modern technologies.
			CO5	Design a clear idea for fish processing Technology.
	FTL 6 B 17	FOOD SAFETY, FOOD LAWS & REGULATIONS	CO1	Analyze the concept of food safety & Quality management.
			CO2	Develop the requirements for food plant sanitation.
			CO3	Assess the fundamentals of Food Adulteration and food sampling.
			CO4	Categorize current food laws and Regulations.
			CO5	Categorize national and international standards and practices for food safety and can implement it at industries
	FTL 6 B 18	TECHNOLOGY OF FRUITS, VEGETABLES, SPICES & PLANTATION CROPS	CO1	Generate the processing and preservation of fruits and Vegetables using various techniques.
			CO2	Inspect the concept of quality in relation to fruits and vegetable-based products.
			CO3	Monitor the maturity indices of fruits and vegetables.
			CO4	Make trained to develop different fruit products.
			CO5	Formulate different value-added products and equipment used in processing and preservation
	FTL 6 B 19 P	-TECHNOLOGY OF FRUITS, VEGETABLES, SPICES & PLANTATION	CO1	Create knowledge on various processing methods in fruits and vegetables
			CO2	Analyze the concept of processing in relation to fruit and vegetable-based products
			CO3	Categorize the specification of fruits and

				vegetables
	FTL 6 B 20 P-	TECHNOLOGY OF ANIMAL FOODS	CO1	Create a knowledge of milk, composition, and its properties
			CO2	Analyze adulteration of milk and its detection
			CO3	Assess the quality of milk by testing fat content, SNF, specific gravity
Name of the Programme				Bachelor of Science, Mathematics
Short Name of the Programme				B Sc. Maths
Code of the Programme				CCASMT
Semester	Course code	Title	CO No.	Course outcome
1	MT1B01	BASIC LOGIC AND NUMBER THEORY	CO1	Use the basics of logic
			CO2	Apply the concept of divisibility, greatest common divisor, least common multiple and a few applications.
			CO3	Solve using the theory and method of solutions of LDE
			CO4	Solve using the theory of congruence and linear congruence
			CO5	Describe three classical theorems viz. Wilson’s theorem, Fermat’s little theorem and Euler’s theorem and a few important consequences.
2	MT2B02	CALCULUS OF SINGLE VARIABLE-1	CO1	Recall the concept of functions and their graphs
			CO2	Describe the limit, continuity and differentiability of a function
			CO3	Apply differentiability in different areas
			CO4	Describe integration and Fundamental Theorem of Calculus
			CO5	Use integrals for the computation of area of surface of revolution, arc length, work, moments and centre of mass
3	MT3B03	CALCULUS OF SINGLE VARIABLE-2	CO1	Describe the logarithmic, exponential, inverse trigonometric and hyperbolic functions and their properties
			CO2	Apply the methods of finding limits of functions in indeterminate forms and method

				of solving improper integrals
			CO3	Illustrate the concepts of sequence and power series
			CO4	Solve parametric equation of curves and polar coordinate system
			CO5	Illustrate the concepts of the planes and surfaces in space and vector valued functions
4	MT4B04	LINEAR ALGEBRA	CO1	Solve systems of linear equations
			CO2	Illustrate the concept of matrices and its properties and carry out various operations on matrices
			CO3	Apply the concept of Linear independence and spanning to find basis of vector space and compute a matrix for transformations
			CO4	Analyze Geometry of matrix operations and determine eigen values of a given matrix and diagonalization process
			CO5	Apply Gram Schmidt orthogonalization to construct orthonormal basis
5	MT5B05	ABSTRACT ALGEBRA	CO1	Use the concepts of integers modulo equivalence relation and permutation to solve related problems
			CO2	Construct examples and discuss the concepts of groups, subgroups and isomorphism
			CO3	Describe the concepts of cyclic groups, permutation groups, homomorphism, cosets, normal subgroups and compute factor groups
			CO4	Apply the concepts of commutative rings, integral domain and isomorphisms to solve problems
	MT5B06	BASIC ANALYSIS	CO1	Describe basic properties of finite and infinite sets, algebraic and order properties of real number system
			CO2	Apply the completeness property of real number system
			CO3	Explain absolute value and intervals of real number system
			CO4	Analyze the concepts of sequence and series and basic topology on \mathbb{R}

			CO5	Illustrate various algebraic, geometric and topological structures of complex number system
	MT5B07	NUMERICAL ANALYSIS	CO1	Use different methods to find out the approximate numerical solutions of algebraic and transcendental equations.
			CO2	Apply various interpolation techniques
			CO3	Explain various techniques of numerical differentiation
			CO4	Explain various techniques of numerical integration
			CO5	Describe numerical approximations to solutions of initial value problems.
	MT5B08	LINEAR PROGRAMMING	CO1	Describe mathematical formulation of a real problem in a systematic way and its optimization according to the situation
			CO2	Analyze systematic study of a given problem and solving it using different methods
			CO3	Use various methods to optimize a transportation problem
			CO4	Categorize various methods to optimize an assignment problem
			CO5	Explain Game Theory
	MT5B09	INTRODUCTION TO GEOMETRY & THEORY OF EQUATIONS	CO1	Discuss the properties of different types of conics
			CO2	Describe Euclidean geometry and transformation and affine geometry
			CO3	Compute quotient and remainder of polynomials using various methods
			CO4	Demonstrate the Fundamental Theorem of Algebra
			CO5	Analyse the location and nature of roots of an equation and solution of an equation by Carden's formula and Ferrari method
	MT5D01	OPEN COURSE APPLIED CALCULUS	CO1	Discuss about functions and continuity of functions
			CO2	Use basic knowledge in differentiation
			CO3	Apply the concepts of differentiation in Economics and graphing of function

6			CO4	Analyse exponential and logarithmic functions
			CO5	Use the idea of basic integration
	MT6B10	REAL ANALYSIS	CO1	Develop the fundamental results of continuous functions on intervals and the significance of uniform continuity
			CO2	Apply basic and fundamental results of integration theory
			CO3	Illustrate pointwise and uniform convergence of sequences and series of functions
			CO4	Describe the notions of improper integrals, their convergence, principal value and evaluation
			CO5	Describe the properties of two important improper integrals namely beta and gamma functions
	MT6B11	COMPLEX ANALYSIS	CO1	Explain differentiable functions, analytic functions, harmonic functions, harmonic conjugates and elementary functions
			CO2	Discuss the definition and properties of complex integration and apply Cauchy's theorem and integral formula
			CO3	Describe the power series representation of analytic functions
			CO4	Application of Laurent series in annular domain
			CO5	Apply Residue theorem in evaluating certain real integrals
	MT6B12	CALCULUS OF MULTI VARIABLE	CO1	Use the concepts of limit and continuity on multivariable functions, notion of partial derivatives and differentials
			CO2	Make a good knowledge on Directional derivatives, Gradient vectors, tangent planes and normal lines to a plane and their geometrical interpretations
			CO3	Use the concept of extremes of functions of two variables and Lagrange multipliers and its applications
			CO4	Explain line integrals, surface integrals, double integrals, triple integrals and some of

				their applications to real life situations
			CO5	Apply Green's theorem, Divergence theorem and Stokes theorem of Multivariable calculus and their use in several areas and directions
	MT6B13	DIFFERENTIAL EQUATIONS	CO1	Modelling process results in a differential equation.
			CO2	Solve DEs that are in linear, separable and in exact forms and identify the basic differences between linear and nonlinear DEs and also basic results that guarantees a solution
			CO3	Demonstrate theory and method for solving a second order linear homogeneous and nonhomogeneous equation with constant coefficients
			CO4	Apply the series solution method for homogeneous equations with variable coefficients near ordinary points and solve differential equations by applying Laplace Transformation and its properties
			CO5	Fourier Series and Solving partial differential equations using the method of separation of variables
	MT6B14(E02)	ELECTIVE GRAPH THEORY	CO1	Discuss the fundamental concepts in graph theory
			CO2	Define Paths and Cycles
			CO3	Interpret trees and their properties
			CO4	Review Eulerian and Hamiltonian graphs
			CO5	Using Euler's formula to prove planarity
1	MTS1C01	MATHEMATICS-1	CO1	Illustrate the development of differential calculus
			CO2	Compute the limit and analyze continuity and differentiability of a function
			CO3	Apply the results in differential calculus to draw the graph of a function
			CO4	Develop the concept of integration.
			CO5	Apply integration for the computation of area and volume
2	MTS2C02	MATHEMATICS-2	CO1	Develop the concept of polar coordinate system, inverse trigonometric functions, hyperbolic functions and inverse hyperbolic

				functions.
			CO2	Compute arc length and surface area.
			CO3	Analyze the concept of improper integrals
			CO4	Illustrate numerical integration
			CO5	Examine the convergence and divergence of a series.
			CO6	Develop the concept of vector space.
			CO5	Deduce different properties of matrices.
3	MTS3C03	MATHEMATICS-3	CO1	Compute various vector concepts using differentials
			CO2	Apply line integrals, surface integrals, double integrals, triple integrals and some of their application to real life situations
			CO3	Apply various theorems in vector calculus
			CO4	Apply the properties of complex functions to analyze the properties of analytic functions
			CO5	Formulate results of contour integrals using line integrals
4	MTS4C04	MATHEMATICS-4	CO1	Solve ODEs that are in linear, separable and in exact forms using different methods
			CO2	Solve the second order differential equations.
			CO3	Apply the method for solving partial differential equations using the method of separation of variables
			CO4	Use the concept of Laplace Transform and apply it for solving initial value problems
			CO5	Describe the series representation using Fourier Series
5	BCA1C01	MATHEMATICAL FOUNDATIONS FOR COMPUTER APPLICATION	C01	Illustrate the concept of matrices and its properties to carry out various operations on matrices and to solve the system of linear equations
			C02	Compute determinant, eigen values and vector operations.
			C03	Evaluate the limit and differentiability of the functions.

			C04	Understand the concept of integration
			C05	Solve the integrals by different methods.
7	BCA2C04	OPERATIONS RESEARCH	C01	Understand the concept of operation research, their advantages, applications and limitations
			C02	Solve real-world problem by means of linear programming.
			C03	Solve Transportation Problem and Assignment Problem
			C04	Apply assignment algorithm to solve real world problems
			C05	Analyze the concepts of networks and different rules to construct a network.
8	BSH3A11	BASIC NUMERICAL METHODS	CO1	Solve linear and quadratic equations using various methods
			CO2	Use the concept of matrices to solve equations
			CO3	Apply the concept of sequences, series and progression
			CO4	Compute simple interest, compound interest and related concepts
			CO5	Apply the concepts of various measures of central tendency and measures of deviation
Name of the Programme			Bachelor of Science, Psychology	
Short Name of the Programme			B.Sc. Psychology	
Code of the Programme			CCASPY	
Semester	Course code	Title	CO No.	Course outcome
1	PSY1B01	BASIC THEMES IN PSYCHOLOGY I	CO1	Demonstrate basic principles in psychology
			CO2	Execute the concepts in psychology.
			CO3	Analyse various theories in psychology
			CO4	Inspect various processes such as attention, learning and consciousness.
			CO5	Implement applications of psychology in everyday life
2	PSY2B01	BASIC THEMES IN	CO1	Monitor various cognitive processes

		PSYCHOLOGY II	CO2	Analyse various theories in psychology
			CO3	Examine knowledge in various processes such as attention, learning and consciousness.
			CO4	Implement applications of psychology in everyday life
			CO5	Rate various theories and concepts in psychology
3	PSY3B01	PSYCHOLOGICAL TESTING AND MEASUREMENT	CO1	Examine the basis of test construction and build up skills on developing psychometric test.
			CO2	Distinguish the uses of psychological tests
			CO3	Analyse the level of knowledge on psychological testing.
			CO4	Apply various scales, tests and tools.
			CO5	Assessing the ethical issues surrounding psychometric evaluation, testing and interpretation in day-to-day life.
4	PSY4B01	INDIVIDUAL DIFFERENCES	CO1	Examine the theoretical knowledge about systems and processes like intelligence and personality.
			CO2	Criticize the history of intelligence and personality testing.
			CO3	Assess the individuals with various types of tests in psychology.
			CO4	Apply the principles of psychological assessment.
			CO5	Dissect the extent to which individual differences are related to human behaviour, cognition, emotion and motivation.
	PSY4B02	EXPERIMENTAL PSYCHOLOGY Practicals -1	CO1	Demonstrate various psychological tests, its uniqueness, values and importance.
			CO2	Develop a scientific ability in understanding behavior.
			CO3	Choose and administer appropriate psychological tests.
			CO4	Implement tests of attention and perception
			CO5	Prioritize effective psychological tool for assessment and evaluation of mental capacities

5	PSY5B01	ABNORMAL PSYCHOLOGY I	CO1	Analyze the concepts of normality, abnormality and mental health.
			CO2	Assess different types of abnormalities
			CO3	Group different disorders based on similar symptoms
			CO4	Distinguish normal vs abnormal levels of anxiety, stress and personality functioning.
			CO5	Organize the knowledge about various disorders in understanding human behaviour
	PSY5B02	SOCIAL PSYCHOLOGY	CO1	Examine the origin and development of social psychology.
			CO2	Conclude theories of attribution and their applications.
			CO3	Arrange factors influencing conformity in social influence.
			CO4	Criticize theories of leadership and their types.
			CO5	Formulate explanations for prosocial behaviour using different models.
	PSY5B03	DEVELOPMENTAL PSYCHOLOGY	CO1	Analyze human development in psychological perspective
			CO2	Assess psychological changes along with physical and cognitive development
			CO3	Examine the process of birth complications and its impact on a developing child
			CO4	Deduce the role of various theories in understanding human development
			CO5	Develop understanding on the psychological, physiological and cognitive aspects of development
	PSY5B04	PSYCHOLOGICAL COUNSELLING	CO1	Develop a level of knowledge on psychological counselling
			CO2	Compile the skills and techniques required in counselling
			CO3	Determine the importance of various theories in the practice of counselling
			CO4	Demonstrate counselling in various settings
			CO5	Develop a level of knowledge on ethics in

				counselling
	PSY5B05	HEALTH PSYCHOLOGY	CO1	Develop a level of knowledge on health psychology
			CO2	Prioritize the concerns and caring of terminally ill patients
			CO3	Examine health related behaviors
			CO4	Formulate a level of knowledge on the theoretical basis of health-related behaviours
			CO5	Apply stress management programs in various life settings
	PSY5D01	PSYCHOLOGY AND PERSONAL GROWTH	CO1	Develop a knowledge on the basic concepts of psychology
			CO2	Formulate an idea on what is positive psychology
			CO3	Apply psychology in various settings in life to attain personal growth
			CO4	Carryout stress management programs in various life settings
			CO5	Create a level of knowledge on importance of mindfulness and relaxation techniques in life
	PSY5D02	LIFE SKILL APPLICATIONS	CO1	Apply life skill techniques
			CO2	Develop communication skills
			CO3	Determine the importance of life skills education
			CO4	Assess the importance of inter and intra personal relationship
			CO5	Group the importance of career planning and development
6	PSY6B01	ABNORMAL PSYCHOLOGY II	CO1	Detect different types of disorders and associated problems caused by substance abuse
			CO2	Examine the clinical features and etiology of psychotic disorders
			CO3	Categorize developmental problems and disabilities
			CO4	Demonstrate the clinical picture of mood disorders
			CO5	Plan interventions to manage psychological

				disorders
	PSY6B02	APPLIED SOCIAL PSYCHOLOGY	CO1	Examine the relationship between social psychology and related disciplines.
			CO2	Criticize the application of social psychology to clinical and counselling psychology.
			CO3	Develop strategies to reduce harmful effects of media violence.
			CO4	Determine theoretical perspectives on aggression and its determinants.
			CO5	Devise solutions to social problems using social psychology concepts.
	PSY6B03	DEVELOPMENTAL PSYCHOLOGY II	CO1	Analyse role of family in emotional development
			CO2	Compare cognitive, socio-emotional development in late adulthood
			CO3	Determine vocational development and adjustment in early adulthood
			CO4	Examine different theories of social development
			CO5	Organize the process of socialization from infancy to adulthood
	PSY6B04	LIFE SKILL EDUCATION: APPLICATION AND TRAINING	CO1	Examine the abilities for adaptive and positive behaviour.
			CO2	Develop self-confidence and self-esteem.
			CO3	Generate emotional competency.
			CO4	Formulate a high sense of competency.
			CO5	Create an integral human being.
	PSY6B05-01	ORGANIZATIONAL BEHAVIOUR	CO1	Compare various organization structures to understand their impact on behaviour and efficiency.
			CO2	Assess the factors influencing perception and their implications in interpersonal interactions.
			CO3	Develop strategies to manage and resolve conflicts by considering different conflict sources and types.
			CO4	Inspect leadership approaches and their functions within an organizational context.

			CO5	Set up methods to balance work and life to effectively manage work-related stress.
	PSY6B06	EXPERIMENTAL PSYCHOLOGY- PRACTICAL II	CO1	Examine the IQ levels of persons by administering Intelligence tests
			CO2	Assess the cognitive functioning of individuals
			CO3	Detect various personality traits of individuals
			CO4	Appraise the memory functioning of the individual
			CO5	Prepare the scientific clinical reports and functional profile of individuals.
	PSY6B07	EXPERIMENTAL PSYCHOLOGY- PRACTICAL III	CO1	Examine the IQ levels of persons by administering Intelligence tests
			CO2	Assess the cognitive functioning of individuals
			CO3	Detect various personality traits of individuals
			CO4	Judge the motor skills of the individual
			CO5	Practice the scientific clinical reports and functional profile of individuals.
	PSY6B08	PROJECT	CO1	Demonstrate the skills in data collection methods.
			CO2	Research in psychology independently.
			CO3	Compare qualitative and quantitative research reports.
			CO4	Formulate the implications and limitations of the research conducted.
			CO5	Organize a research report in APA style.
1	PSG1C01	HUMAN PHYSIOLOGY I	CO1	Analyze the fundamental aspects of cellular organization
			CO2	Determine the basics of genes and chromosomes
			CO3	Examine the fundamental aspects of cell division
			CO4	Distinguish the fundamental aspects of mutation and genetic disorders
			CO5	Determine the elements of heredity and

				variation
2	PSG2C01	HUMAN PHYSIOLOGY II	CO1	Analyse the structure of nervous system
			CO2	Determine the structure of Central Nervous System
			CO3	Probe into the structure and functions of cerebellum and basal ganglia
			CO4	Examine the primary functions of cerebral cortex
			CO5	Categorize the types of Brain-imaging techniques
3	PSG3C01 -	HUMAN PHYSIOLOGY III	CO1	Determine the structure and organization of visual system
			CO2	Analyze the anatomy of auditory system
			CO3	Determine the gustatory and olfactory systems
			CO4	Examine the somatic sensations
			CO5	Analyze the endocrine system
4	PSG4C01 -	HUMAN PHYSIOLOGY IV	CO1	Examine the basic aspects of physiological basis of hunger
			CO2	Determine the fundamental aspects of physiological basis of thirst
			CO3	Examine the basics of the physiological basis of sexual behavior
			CO4	Analyze the neural basis of emotion
			CO5	Examine the causes of brain damage and neuropsychological disorders
Name of the Programme			Bachelor of Social Work	
Short Name of the Programme			BSW	
Code of the Programme			CCABSW	
Semester	Course code	Title	CO No.	Course outcome
1	BSW1 B01	INTRODUCTION TO SOCIAL WORK	CO1	Analyze the methods of Social Work
			CO2	Probe the historical development of Social Work
			CO3	Implement the principles and values of Social Work

			CO4	Practice theoretical knowledge of Social Work
			CO5	Determine basic concepts related to Social Work
2	BSW2 B02	FIELDS OF SOCIAL WORK	CO1	Create awareness about enlarging scope of Social Work profession
			CO2	Detect different problems in various fields of Social Work
			CO3	Assess skills for working in different areas of Social Work
			CO4	Demonstrate the different roles of social worker in various fields of Social Work
			CO5	Practice theoretical knowledge of social work in a community setting
3	BSW 3B 03	INTRODUCTION TO SOCIAL CASE WORK	CO1	Examine the basic concepts in Social Case Work
			CO2	Demonstrate the students with the process of Social Case Work
			CO3	Develop in students the necessary attitude and skills to practice Social Case Work
			CO4	Debate the importance of case work recording
			CO5	Analyze the techniques of counselling in Social Case Work
	BSW 3B 04	INTRODUCTION TO SOCIAL GROUP WORK	CO1	Adapt the scope of Group Work in social work intervention
			CO2	Distinguish within group formation, group work process and evaluation
			CO3	Practice skills and attitudes for participatory group work
			CO4	Analyze the social aspects and knowledge of social group work.
			CO5	Integrate theoretical aspects of Group work into practice
4	BSW 4B 05	INTRODUCTION TO COMMUNITY ORGANISATION AND SOCIAL ACTION	CO1	Adapt the elements of Community Organisation practice.
			CO2	Practice skills and attitudes for participatory community work.

5			CO3	Appraise with various skills, strategies and models of community organizations in practice.
			CO4	Develop critical perspectives and skills for participatory processes in community organization.
			CO5	Apply the theoretical knowledge in organizing the community
	BSW 5B 07	INTRODUCTION TO SOCIAL WORK ADMINISTRATION	CO1	Analyze the concepts and functions of social work administration
			CO2	Demonstrate the administrative process in welfare institutions
			CO3	Examine the laws for the formation of NGOs
			CO4	Analyze the welfare programmes for children, women, aged, destitute and differently abled
			CO5	Examine the social welfare administration in India
	BSW 5B 08	RURAL AND URBAN COMMUNITY DEVELOPMENT	CO1	Distinguish community development and community organization
			CO2	Determine rural development administration
			CO3	Execute rural development programs
			CO4	Examine the problems of urban communities
			CO5	Demonstrate urban development programs
	BSW 5B 09	INTRODUCTION TO SOCIAL WORK RESEARCH & STATISTICS	CO1	Apply systematic or scientific procedure in Social Work Research
			CO2	Distinguish between different research designs
			CO3	Integrate knowledge of sampling designs, methods and tools of data collection.
			CO4	Categorize various basic quantitative techniques for analyzing data
			CO5	Formulate research project proposals for social work intervention
	BSW 5 B10	GANDHIAN PHILOSOPHY AND SOCIAL WORK	CO1	Create an insight about basic concepts of Gandhi
			CO2	Create a knowledge on Gandhian views on Community Development

6			CO3	Examine Gandhian ideology of education and his philosophy
			CO4	Justify Gandhian Economic Thought
			CO5	Debate the Gandhian views on social problems
	BSW 5D 03	GENDER AND DEVELOPMENT IN SOCIAL WORK (OPEN COURSE)	CO1	Examine key concepts, issues in gender and development
			CO2	Develop awareness on status of women and men in various social institutions
			CO3	Debate the central and state programmes and policies for women in India
			CO4	Contrast the status of women in Kerala in various social scenario
			CO5	Create awareness about the various problems and related legislations for women in India
	BSW 6B 11	PROJECT PLANNING AND MANAGEMENT FOR SOCIAL WORK	CO1	Demonstrate basic knowledge of people's participation in project planning and management
			CO2	Examine the steps in participatory project planning
			CO3	Estimate basic financial management plans for a project
			CO4	Distinguish between monitoring and evaluation of development projects
			CO5	Develop independent projects for the attainment of development needs and as part of social work intervention
	BSW 6B 12	LEGAL INFORMATION FOR SOCIAL WORK	CO1	Examine the concept of social legislation and Indian Constitution
			CO2	Analyze the Indian Judicial System and its functioning
			CO3	Examine the human rights, child rights and statutory bodies
			CO4	Inspect the laws for the protection of women, children, differently abled, SC/ST and senior citizens
			CO5	Examine the provisions of social security legislations
	BSW 6B 13	COMMUNITY	CO1	Examine the concept of health and its various

		HEALTH AND SOCIAL WORK		perspectives
			CO2	Analyze the various health problems and its impact on communities
			CO3	Develop skills for planning and implementing community health programmes
			CO4	Analyze the role of social workers in community health programmes.
			CO5	Examine the various Public Health Programs in India.
	BSW 6B 16	GENDER AND DEVELOPMENT IN SOCIAL WORK	CO1	Examine key concepts, issues in gender and development.
			CO2	Develop awareness on status of women and men in various social institutions.
			CO3	Debate the central and state programmes and policies for women in India.
			CO4	Contrast the status of women in Kerala in various social scenario.
			CO5	Create awareness about the various problems and related legislations for women in India.
1	Complimentary 1. SGY1(2)C01	PRINCIPLES OF SOCIOLOGY	CO1	Examine that society can be studied scientifically.
			CO2	Detect contributions of social sciences in understanding contemporary social realities.
			CO3	Develop sociological perspective on current issues.
			CO4	Examine the different types of culture and the changes in contemporary world.
			CO5	Debate the identities and differences of Indian Society in terms of gender, religion, region, caste, media and family.
	Complimentary 2. SGY3(4)C02	SOCIOLOGY OF INDIAN SOCIETY	CO1	Examine the concepts of Indian Society.
			CO2	Analyse the changes of Indian caste system.
			CO3	Analyze the Indian social system and basic concepts of social change in India.
			CO4	Compare the approaches for studying Indian society.
			CO5	Detect the emerging social issues and problems.

	Complimentary 3. PSY1C05/PS Y2C05	PSYCHOLOGICAL PROCESSES	CO1	Create interest in Psychology.
			CO2	Integrate the knowledge of the concepts of basic psychological processes.
			CO3	Debate the basics of various theories in Psychology.
			CO4	Create basic knowledge about systems and processes like attention and learning.
			CO5	Create basic knowledge about systems and processes like cognition, intelligence and personality.
	Complimentary 4. PSY3C06/PS Y4C06-	LIFE SPAN DEVELOPMENT AND HEALTH PSYCHOLOGY	CO1	Analyze the stages of development.
			CO2	Create awareness about major psychological changes along with physical and cognitive development.
			CO3	Examine health behaviour models.
			CO4	Practice stress management techniques.
			CO5	Monitor the development tasks of each stage of development.
4	BSW 4 B 06 Fieldwork	COMMUNITY FIELDWORK (P)	CO1	Analyse the community as a system and its needs to develop an integrated approach to problem-solving process.
			CO2	Organize community-based programmes for social work intervention.
			CO3	Demonstrate basic skills in practicing Social Case Work.
			CO4	Demonstrate basic skills in practicing Social Group Work.
			CO5	Demonstrate skills in reporting, recording and documenting.
6	Course Code BSW 6 B 14	FIELDWORK – AGENCY BASED CONCURRENT FIELDWORK (P)	CO1	Analyse the agency as a system and its needs for developing an integrated approach to problem solving process.
			CO2	Demonstrate basic skills in practicing primary methods of Social Work
			CO3	Practice secondary methods of social work.
			CO4	Organize agency-based programmes and exhibit skills in programme management.
			CO5	Design project proposal for the agency and

				the target population.
Name of the Programme				Bachelor of Science, Physics
Short Name of the Programme				B.Sc. Physics
Code of the Programme				CCASPH
Semester	Course code	Title	CO No.	Course outcome
1	PHY1B01	MECHANICS I	CO1	Apply the basic concepts of Newtonian Mechanics to physical systems.
			CO2	Develop the basic idea of work-energy theorem to physical systems.
			CO3	Examine the rotational dynamics of rigid bodies.
2	PHY2B02	MECHANICS II	CO1	Analyze the features of non-inertial systems and fictitious forces.
			CO2	Analyze the features of central forces with respect to planetary motion.
			CO3	Create the basics ideas of harmonic oscillations.
			CO4	Apply the basics concepts of wave motion.
3	PHY3B03	ELECTRODYNAMICS I	CO1	Practice the fundamentals of vector calculus.
			CO2	Analyze the electrostatic properties of physical system.
			CO3	Deduce the mechanism of electric field in matter.
			CO4	Analyze the magnetic properties of physical systems.
			CO5	Analyze the mechanism of magnetic field in matter.
4	PHY4B04	ELECTRODYNAMICS II	CO1	Evaluate the basic concepts of electrodynamics.
			CO2	Analyze the properties of electromagnetic waves.
			CO3	Deduce the behavior of transient currents.
			CO4	Assess the basic aspects of ac circuits.
			CO5	Apply electrical network theorems.
5	PHY5B06	COMPUTATIONAL	CO1	Design and develop a python program.

		PHYSICS	CO2	Apply different Python modules in python program.
			CO3	Choose appropriate techniques of numerical analysis to solve a physics problem.
			CO4	Apply computational techniques to physical problems.
	PHY5B07	QUANTUM MECHANICS	CO1	Compare the particle and wave properties of electromagnetic radiation.
			CO2	Distinguish Rutherford and Bohr model of the atom.
			CO3	Asses the wavelike properties of particles.
			CO4	Apply the Schrödinger equation to simple physical systems.
			CO5	Apply the principles of wave mechanics to the Hydrogen atom.
	PH5B08	OPTICS	CO1	Implement the fundamentals of Fermat's principles and geometrical optics.
			CO2	Apply the basic ideas of interference of light.
			CO3	Examine the basic ideas of diffraction of light.
			CO4	Conclude the basic ideas of polarization of light.
			CO5	Asses the basic principles of holography and fibre optics.
	PHY5B09	ELECTRONICS (ANALOG & DIGITAL)	CO1	Inspect the basic principles of rectifiers and dc power suppliers.
			CO2	Analyse the principles of transistor.
			CO3	Assemble transistor amplifiers and oscillators.
			CO4	Assess the basic operation of Op – Amp and its applications.
			CO5	Apply the basics of digital electronics.
6	PHY6B10	THERMODYNAMICS	CO1	Illustrate the zero and first laws of thermodynamics.
			CO2	Apply the thermodynamic description of the ideal gas.
			CO3	Examine the second law of thermodynamics and its application.

			CO4	Evaluate the basic ideas of entropy.
			CO5	Develop the concepts of thermodynamic potentials and phase transitions.
	PHY6B11	STATISTICAL PHYSICS, SOLID STATE PHYSICS, SPECTROSCOPY & PHOTONICS	CO1	Explain basic principles of statistical physics and its applications.
			CO2	Compare the basic aspects of crystallography in solid state physics.
			CO3	Examine the basic elements of spectroscopy.
			CO4	Analyse the microwave and infra-red spectroscopy.
			CO5	Examine the fundamental ideas of photonics.
	PHY6B12	NUCLEAR PHYSICS AND PARTICLE PHYSICS	CO1	Examine the basic aspects of nuclear structure and fundamentals of radioactivity.
			CO2	Compare the different types of nuclear reactions and their applications.
			CO3	Analyse the principle and working of particle detector.
			CO4	Assess the principle and working of particle accelerators.
			CO5	Validate the basic principles of elementary particle physics.
	PHY6B13	RELATIVISTIC MECHANICS AND ASTROPHYSICS	CO1	Analyze the fundamental ideas of special relativity.
			CO2	Assess the basic concepts of general relativity and cosmology.
			CO3	Assess the basic techniques used in astronomy.
			CO4	Compile the evolution and death of stars.
			CO5	Compile the structure and classification of galaxies.
	PHY6B14	ELECTIVE -1- BIOMEDICAL PHYSICS	CO1	Assess the basic principles of biophysics.
			CO2	Develop the fundamentals of medical instrumentation.
			CO3	Justify the principles of ultrasound and x-ray imaging.
			CO4	Assess the basic principles of NMR.
			CO5	Deduce the applications of lasers in

				medicine.
	PHY6B14	ELECTIVE -2- NANOSCIENCE AND TECHNOLOGY	CO1	Assess the elementary concepts of nanoscience.
			CO2	Assess the electrical transport mechanisms in nanostructures.
			CO3	Apply the applications of quantum mechanics in nanoscience.
			CO4	Create the fabrication and characterization techniques of nanomaterials.
			CO5	Compile the different applications of nanotechnology.
	PHY6B14	ELECTIVE -2- MATERIALS SCIENCES	CO1	Assess the basic ideas of bonding in materials.
			CO2	Distinguish crystalline and non crystalline materials.
			CO3	Examine the types of imperfections and diffusion mechanisms in solids.
			CO4	Justify the different properties of ceramics and polymers.
			CO5	Examine the different types of material analysis techniques.
4	PHY4B05	PRACTICAL I	CO1	Apply and illustrate the concepts of properties of matter through experiments.
			CO2	Apply and illustrate the concepts of electricity and magnetism through experiments.
			CO3	Apply and illustrate the concepts of optics through experiments.
			CO4	Apply and illustrate the principles of electronics through experiments.
6	PHY6B15	PRACTICAL II	CO1	Apply and illustrate the concepts of properties of matter through experiments.
			CO2	Apply and illustrate the concepts of electricity and magnetism through experiments.
			CO3	Apply the concepts of optics and spectroscopy through experiments.
			CO4	Apply the principles of heat through experiments.

	PHY6B16	PRACTICAL III	CO1	Apply the principles of semiconductor diode and transistor through experiments.
			CO2	Produce the principles of transistor amplifier and oscillator through experiments.
			CO3	Apply the principles of digital electronics through experiments.
			CO4	Apply computational techniques in Python programming.
	PHY6B17(P)	PROJECT	CO1	Hypothesize research methodology.
			CO2	Formulate a research project.
			CO3	Design a research project.
			CO4	Formulate the scope and limitations of a research project.
	PHY6B17(R)	RESEARCH METHODOLOGY (In lieu of Project)	CO1	Concoct research methodology.
			CO2	Compile the concept of measurement in research.
			CO3	Concoct the significance and limitations of experimentation in research.
			CO4	Formulate a research project, ethics and responsibility of scientific research.
5	PHY5D01(1)	OPEN COURSE: NON-CONVENTIONAL ENERGY SOURCES	CO1	Devise the importance of non conventional energy sources.
			CO2	Critique the basic aspects of solar energy.
			CO3	Judge the basic principles of wind energy conversion.
			CO4	Compose the basic ideas of geothermal and biomass energy and recognize their merits and demerits.
			CO5	Design the basic ideas of oceans and chemical energy resources and recognize their merits and demerits.
1	PHY1C01	Complementary-1- Properties of matter & Thermodynamics	CO1	Judge the basic principles of elasticity.
			CO2	Create the concepts of surface tension.
			CO3	Develop the aspects of viscosity.
			CO4	Assess the basic principles of thermodynamics.
2	PHY2C02	Complementary-2-	CO1	Develop the basic concepts of interference

		Optics, Laser & Electronics		and diffraction.
			CO2	Assess the concepts of polarization
			CO3	Compose the fundamentals of electronics
			CO4	Imagine the important principles of laser physics.
3	PHY3C03	Complementary-3-Mechanics, Relativity, Waves and Oscillations	CO1	Create the basic ideas of frames of reference and the principles of conservation of energy and momentum.
			CO2	Compile the concepts of relativity.
			CO3	Imagine the basic ideas of oscillations and waves.
			CO4	Deduce the basic ideas of modern physics.
4	PHY4C04	Complementary-4-Electricity, Magnetism and Nuclear physics	CO1	Apply the basic ideas of static and current electricity.
			CO2	Set up the concepts of magnetism.
			CO3	Determine the fundamental concepts of nuclear physics.
			CO4	Develop the basic ideas of cosmic rays and elementary particles
1 to 4	PHY4C05	Complementary-5-PRACTICALS I	CO1	Apply the concepts of properties of matter through experiments
			CO2	Make the concepts of electricity and magnetism through experiments.
			CO3	Apply the concepts of optics through experiments.
			CO4	Examine the principles of electronics through experiments.
5	PHY5D01(3)	ELEMENTARY MEDICAL PHYSICS (OPEN COURSE)	CO1	Analyze the basic aspects of physics of nuclear medicine.
			CO2	Develop different bioelectric signals and their instrumentation
			CO3	Compile the basic elements of X-ray imaging.
			CO4	Asses the basic elements of ultrasound imaging and its advantages and disadvantages.
Name of the Programme			Bachelor of Science, Chemistry	

Short Name of the Programme				B.Sc. Chemistry
Code of the Programme				CCASCHE
Semester	code	Title	CO No:	Course Outcomes
1	CHE1B01	THEORETICAL AND INORGANIC CHEMISTRY- I	CO1	Illustrate the methods of a research project.
			CO2	Examine the principles behind volumetry.
			CO3	Compare the characteristics of different elements.
			CO4	Distinguish between different acid base concepts.
			CO5	Deduce the stability of different nuclei.
2	CHE2B02	THEORETICAL AND INORGANIC CHEMISTRY- II	CO1	Criticize the importance and the impact of quantum revolution in science.
			CO2	Assess the concept that the wave functions of hydrogen atom are nothing but atomic orbitals.
			CO3	Compare the chemical bonding is the mixing of wave functions of the two combining atoms.
			CO4	Demonstrate the concept of hybridization as linear combination of orbitals of the same atom.
			CO5	Inculcate an atomic/molecular level philosophy in the mind.
3	CHE3B03	PHYSICAL CHEMISTRY - I	CO1	Analyse the properties of gaseous state and how it links to thermodynamic systems.
			CO2	Examine the concepts of thermodynamics and it's relation to statistical thermodynamics.
			CO3	Apply symmetry operations to categorize different molecules.
4	CHE4B04	ORGANIC CHEMISTRY– I	CO1	Apply the concept of stereochemistry to different compounds.
			CO2	Examine the basic concepts of reaction mechanism.
			CO3	Analyse the mechanism of a chemical reaction.
			CO4	Justify the stability of different aromatic

	CHE4B05(P)	INORGANIC CHEMISTRY PRACTICAL – I		systems.
			CO1	Enable the students to develop skills in quantitative analysis and preparing inorganic complexes.
			CO2	Deduce the principles behind quantitative analysis.
			CO3	Apply appropriate techniques of volumetric quantitative analysis in estimations.
5	CHE5B06	INORGANIC CHEMISTRY – III	CO4	Analyse the strength of different solutions.
			CO1	Deduce the principles behind qualitative and quantitative analysis.
			CO2	Demonstrate the basic processes of metallurgy and to analyse the merits of different alloys.
			CO3	Analyse the applications of different inorganic polymers.
			CO4	Analyse different polluting agents.
	CHE5B07	ORGANIC CHEMISTRY – II	CO5	Apply the principles of solid waste management.
			CO1	Examine the difference between alcohols and phenols.
			CO2	Demonstrate the importance of ethers and epoxides.
			CO3	Apply organometallic compounds in the preparation of different functional groups.
			CO4	Apply different reagents for the inter conversion of aldehydes, carboxylic acids and acid derivatives.
	CHE5B08	PHYSICAL CHEMISTRY – II	CO5	Apply active methylene compounds in organic preparations.
			CO1	Apply the concept of kinetics, catalysis and photochemistry to various chemical and physical processes.
			CO2	Distinguish different molecules using spectral methods.
6	CHE6B09	INORGANIC CHEMISTRY – IV	CO3	Examine the various phase transitions and its applications.
			CO1	Demonstrate the principles behind different instrumental methods.

			CO2	Distinguish between lanthanides and actinides.
			CO3	Deduce the importance of CFT.
			CO4	Demonstrate the importance of metals in living systems.
			CO5	Distinguish geometries of coordination compounds.
	CHE6B10	ORGANIC CHEMISTRY – III	CO1	Analyse the structure of simple organic compounds using spectral techniques.
			CO2	Examine the basic structure and tests for carbohydrates.
			CO3	Demonstrate the basic components and importance of DNA.
			CO4	Demonstrate the basic structure and applications of alkaloids and terpenes.
			CO5	Distinguish different pericyclic reactions.
	CHE6B11	PHYSICAL CHEMISTRY – III	CO1	Analyse the basic concepts of electrochemistry.
			CO2	Examine the importance of colligative properties.
			CO3	Analyse the properties of materials/solids to the geometrical properties and chemical compositions.
	CHE6B12	ADVANCED AND APPLIED CHEMISTRY	CO1	Demonstrate the importance of nanomaterials.
			CO2	Examine the importance of green approach in chemistry.
			CO3	Demonstrate the uses and importance of computational calculations in molecular design.
			CO4	Examine the role of chemistry in human happiness index and life expectancy.
	CHE6B13(E3)	ELECTIVE 1. MEDICINAL AND ENVIRONMENTAL CHEMISTRY	CO1	Demonstrate the importance of drugs in human health.
			CO2	Examine the facts about common diseases and treatment.
			CO3	Demonstrate the presence of toxic substances in atmosphere.

			CO4	Apply chemistry in the treatment of water and sewage.
	CHE6B14(P)	PHYSICAL CHEMISTRY PRACTICAL	CO1	Illustrate analytical skills in determining the physical properties (physical constants)
			CO2	Compare an experimental method to determine the physical properties.
			CO3	Demonstrate Conductometry.
	CHE6B15(P)	ORGANIC CHEMISTRY PRACTICAL	CO1	Examine analytical skills in organic qualitative analysis.
			CO2	Examine organic preparations to ensure maximum yield.
			CO3	Apply the concept of melting or boiling points to check the purity of compounds.
			CO4	Analyse and characterize simple organic functional groups.
			CO5	Analyse individual amino acids from a mixture using chromatography.
	CHE6B16(P)	INORGANIC CHEMISTRY PRACTICAL-II	CO1	Analyse the students to develop analytical skills in inorganic quantitative analysis.
			CO2	Demonstrate the principles behind gravimetry and to apply it in quantitative analysis.
			CO3	Examine the principles behind colorimetry and to apply it in quantitative analysis.
	CHE6B17(P)	INORGANIC CHEMISTRY PRACTICAL-III	CO1	Examine the skills in inorganic quantitative analysis.
			CO2	Demonstrate the principles behind inorganic mixture analysis and to apply it in quantitative analysis.
			CO3	Analyse systematically mixtures containing two cations and two anions.
	CHE6B18(P R)	PROJECT WORK	CO1	Analyse the scientific methods of research project.
			CO2	Apply the scientific method in life situations.
			CO3	Analyse scientific problems systematically.
1	CHE1C01	CHEMISTRY COMPLEMENTARY COURSE I:	CO1	Apply the theories of quantitative and qualitative analysis.
			CO2	Demonstrate the theories of chemical

		GENERAL		bonding.
			CO3	Demonstrate the uses of radioactive isotopes.
			CO4	Examine the importance of metals in biological system
2	CHE2C02	COMPLEMENTARY COURSE II: PHYSICAL CHEMISTRY	CO1	Demonstrate the importance of free energy in defining spontaneity.
			CO2	Demonstrate the theories of different states of matter and their implication.
			CO3	Examine the basic principles of electrochemistry.
3	CHE3C03	COMPLEMENTARY COURSE III: ORGANIC CHEMISTRY	CO1	Demonstrate the basic concepts involved in reaction intermediates.
			CO2	Examine the importance of optical activity and chirality.
			CO3	Demonstrate the importance of functional groups and aromatic stability
			CO4	Examine the basic structure and importance of carbohydrates, nucleic acids, alkaloids and terpenes.
4	CHE4C04	COMPLEMENTARY COURSE IV: PHYSICAL AND APPLIED CHEMISTRY	CO1	Demonstrate the basic concepts behind colloidal state and nano chemistry.
			CO2	Illustrate the importance of green chemistry and pollution prevention.
			CO3	Demonstrate the importance of different separation methods and spectral techniques.
			CO4	Examine the extent of chemistry in daily life.
	CHE4C05(P)	COMPLEMENTARY COURSE V: CHEMISTRY PRACTICAL	CO1	Demonstrate the analytical skills in inorganic quantitative analysis.
			CO2	Analyse systematically mixtures containing two cations.
5	CHE5D02	OPEN COURSE 2: CHEMISTRY IN DAILY LIFE	CO1	Analyse the basics of polymer chemistry.
			CO2	Illustrate the functions of biomolecules, vitamins, enzymes, hormones and nucleic acid.
			CO3	Examine food additives and food habits.
			CO4	Illustrate the uses of pesticides and fertilizers and their impacts on the environment.
			CO5	Demonstrate the advantages and

				disadvantages of cleansing agents and cosmetics.
			CO6	Illustrate the common classes of drugs in pharmaceutical industry and their application.
Name of the Programme				Bachelor of Physical Education
Short Name of the Programme				B.PE
Code of the Programme				CCABPE
Semester	Course code	Title	CO No.	Course outcome
1	CC15UBPE1 T4	HISTORY OF PHYSICAL EDUCATION -	CO1	Identify the need and importance of physical education.
			CO2	Assess the physical education in ancient period and Ancient and Modern Olympic games.
			CO3	Summarize the Ancient and Modern Olympic games.
			CO4	Discuss the institutions, commissions and committees in physical education and sports
			CO5	Review the physical education in contemporary India and history of physical education in Kerala.
1	CC15UBPE1 T5	FUNDAMENTALS OF COMPUTERS AND INFORMATION TECHNOLOGY	CO1	Summarize the basis of computer software and operating system
			CO2	Explore the windows OS
			CO3	Demonstrate MS Word, MS Excel and MS PowerPoint.
			CO4	Discuss the importance of database various internet concepts like www, e-mail and web publishing.
			CO5	Discuss the scope and need of ICT and describe the new methods in ICT.
3	CC15UBPE3 T12	KINESIOLOGY	CO1	Define kinesiology and discuss the importance of kinesiology.
			CO2	Illustrate the structural and functional classification of muscles.
			CO3	Demonstrate the fundamental and anatomical positions and basic joint movements.

			CO4	Examine the gradation of muscle contraction.
			CO5	Categorize different joints of human body.
4	CC15UBPE4 T17	CORRECTIVE PHYSICAL EDUCATION -	CO1	Explain the importance of posture & its types.
			CO2	Examine postural deformities & provide corrective exercises for the deviations.
			CO3	Analyze the advantages & disadvantages of fundamental positions.
			CO4	Discuss about exercise therapy and illustrate different massaging techniques.
			CO5	Describe the importance of corrective physical education.
3		TEACHING METHODS IN PHYSICAL EDUCATION	CO1	Prepare the students to take lessons in effective way.
			CO2	Demonstrate method of teaching physical activities.
			CO3	Apply teaching aid for effective learning.
			CO4	Prepare the student to apply principles of teaching.
			CO5	Organize and conduct of sports competitions.
		SOCIOLOGY	CO1	Provides initial knowledge about society.
			CO2	Inculcating values and morals for social life.
			CO3	To interpret the role of social process.
			CO4	Impart the role of socialization.
			CO5	Realize importance of sports in social life.
3	CC15UBPE3 T14	TESTS AND MEASUREMENT IN PHYSICAL EDUCATION -	CO1	Analyze the concept of test, measurement and evaluation in Physical Education.
			CO2	Prepare to construct and conduct the physical fitness and sports skill test.
			CO3	Validate the criteria of test selection and categorize the planning for test administration.
			CO4	Organize the tests that measure various components of physical fitness and sport.
			CO5	Compare and apply the basics of statistics in research.

4	CC15UBPE4 T21	HEALTH & FITNESS MANAGEMENT -	CO1	Categorize the various physical fitness components required for performing different sports & games.
			CO2	Plan a health & fitness center with proper equipment.
			CO3	Invent an exercise training schedule for different categories of population.
			CO4	Design a nutritional diet for individuals.
			CO5	Discuss the various factors influencing healthy life & occupational hazards with their remedial measures.
		MANAGEMENT IN PHYSICAL EDUCATION AND SPORTS	CO1	Effective planning, organizing, goal setting.
			CO2	Provide effective communication and coordination.
			CO3	To adopt a suitable management style.
			CO4	Improvement, assessment in sports organization.
			CO5	Career in sports administration, facility Management.
3	CC15UBPE3 T16	SPORTS MEDICINE	CO1	Interpret the history, aims, need and scope of Sports medicine.
			CO2	Discuss the types of injuries, classifications and organize the management of regional injuries.
			CO3	Describe the different therapeutic modalities and the procedures of each method and create and choose a rehabilitating training session for athletes with various injuries.
			CO4	Explain the various heat and cold injuries and their prevention and treatment.
			CO5	Compare the special problems faced by female athletes as opposed to the males and design a nutrition and diet plan for athletes.
2	CC15UBPE2	FIRST AID AND SAFETY EDUCATION AND LIFE SKILL EDUCATION -	CO1	Describe First Aid – General procedure first aid and first aid kit.
			CO2	Compare different types wounds and fractures and its treatments.
			CO3	Apply first aid for specific injuries.
			CO4	Distinguish disaster readiness and assemble

				the safety in sports, home, traffic, and at school.
			CO5	Explain Sports, Socialization, Sports and Character Building and Values in Sports.
2	CC15UBPE2 T8	FOUNDATION OF PHYSICAL EDUCATION -	CO1	Analyze the origin, development and concepts of physical education.
			CO2	Examine the principles of philosophy & assess the relationship between general education and physical education.
			CO3	Justify the works of Philosophers of Education and Physical Education.
			CO4	Debate the recent developments and academic foundation of Physical Education.
			CO5	Examine the wholesome development of the human being through various theories of physical Education.
4	CC15UBPE4 T19	BIOMECHANICS	CO1	Understanding Biomechanics, emphasizing its role in enhancing athletic performance and preventing injuries and application of Newton's laws of motion to analyze and explain various sports-related movements and actions.
			CO2	Understanding Aerodynamics Describe and analyze Projectile Motion. Understand the concept of spin and impact on air and after bouncing.
			CO3	Strong grasp of lever, classes, and practical applications.
			CO4	Understand the concept of equilibrium, its types, and the factors that affect it, particularly as it relates to sports movements and techniques.
			CO5	Analyzing the biomechanics of various sports movements, such as walking, running, jumping, throwing, and striking.
3	CC15UBPE3 T15	SCIENTIFIC PRINCIPLES OF COACHING -	CO1	Understanding the Fundamentals of Sports Training.
			CO2	Deep understanding of training load management and Principles of over load
			CO3	Students will be proficient in creating short-term and long-term training plans for various levels of competition and Understanding

				about Periodization
			CO4	Students will be able to define and categorize physical fitness components and understand the training means used to develop motor abilities.