Department of Computer Applications

Programme Outcomes 2021-2022

PO1	Apply appropriate techniques, skills and implement tools necessary for computing practice.
PO2	An ability to function effectively on teams to communicate and engage with diverse stakeholders.
PO3	Identify and apply knowledge of computing and Mathematics appropriate to the discipline.
PO4	To expose and develop technical, analytical and creative skills.
PO5	To promote and uphold self-discipline, Leadership Qualities, Secular Outlook, National Integration and Civic Responsibility.
PO6	Augment the Acquisition of Micro and Macro Skills of Tamil / Malayalam / Hindi / French Language Usages.
PO7	Enhance Communicative Linguistic Competency and Employability Quotient.
PO8	Exhibit consistent academic excellence and integrated personality towards lifelong learning.

Programme Specific Outcomes

PSO1	Graduates will have the ability to analyze the real-world problem with feasible computing solutions.
PSO2	Graduates can explore the technical comprehension in varied areas and experience a conducive environment in cultivating skills for career and higher studies.
PSO3	Graduates will be able to access the gap for innovation and initiate the process through Entrepreneurship or employability.

Programme Educational Objectives

PEO1	To adapt changing technologies, tools and societal requirements.
PEO2	To provide quality education in computer applications for making the students competent into the Global IT World.
PEO3	To work effectively as a team member as well as a leader while working in multidisciplinary teams.
PEO4	To take up higher education and/or be associated with the field so that they can keep themselves abreast of Software Development & Maintenance.
PEO5	To imbibe the students with professional skills and ability to relate computer applications to broader social context.

Course Outcomes

Semester	Course Code		Course Outcomes	Blooms Taxonomy
I	121K01	CO1	Describe the basic structure of C and use the concepts like Data types, Keywords, Variables, Operators and Expressions.	R
		CO2	Develop a program using Debugging strategies, branching and Looping constraints	A
		CO3	Design a program using Arrays, Strings and User-Defined Functions.	A
		CO4	Implement the mechanism like searching, insertion, deletion and traverse on various Data Structures.	A
		CO5	Understand the hierarchical data storage in system using different Tree Structures.	U
	121KP1	CO1	Write a C program using the looping controls for improving their logical thinking.	A
		CO2	Develop a C program using functions, strings and array.	A
		CO3	Implement the Data Structure concepts of problem solving, bubble sort, stack and queue.	A
II	221K02	CO1	Explain the object-oriented programming concepts and basics of C++ with data types, variables, constants, operators and control statements.	A
		CO2	Express the concepts of Class, Friend Function, Constructor and Destructor.	U
		CO3	Understand the concepts like Arrays, Functions and Inheritance.	U
		CO4	Develop programs using Pointers and Polymorphism.	A
		CO5	Implement the concept Exception handling mechanism and String operations.	A
	221KP2	CO1	Use the C++ concepts like Strings, Function and Operator Overloading.	A
		CO2	Develop C++ programs using Class, array of objects, Constructor, Destructor, Functions and Pointers.	A
		CO3	Apply the concepts of Inheritance and graphical techniques	A

Department of Computer Applications

Programme Outcomes 2017-2018

Programme Outcomes

PO 1: Able to apply computer based technical knowledge in all domains and to solve real time problems effectively with logical thinking.
PO 2: Be able to analyze, design, implement and evaluate software systems with assured quality and Efficiency.
PO 3: Will develop an ability to apply appropriate techniques, resources and modern computer tools for developing software with an understanding of the limitations in multidisciplinary environments.
PO 4: Be capable to create efficient reports and design documentation with effective presentations.
PO 5: Be adaptive to technological advancements by engaging in lifelong learning with leadership qualities, professional ethics and soft skills.

Program Specific Outcomes

PSO 1: Graduates will be able to understand, analyze and develop computer programs in the areas related to algorithms, web design, and networking for efficient design of computer-based systems of varying complexity.
PSO 2: Graduates will be able to use the techniques, skills and software tools necessary for innovative software solutions.
PSO 3: Graduates will have the ability to understand and analyze a given real-world problem and purpose feasible computing solutions.
PSO 4: Graduates will be able to assess the gap for innovation and initiate the process through entrepreneurship or otherwise.

Programme Education Objectives

PEO 1: To adapt changing technologies, tools and societal requirements.
PEO 2: To provide quality education in computer applications for making the students competent to enter into the Global IT World.
PEO 3: To work effectively as a team member as well as a leader while working in multidisciplinary teams.
PEO4: To take up higher education and/or be associated with the field so that they can keep themselves abreast of Software Development & Maintenance.
PEO5: To imbibe the students with professional skills and ability to relate computer applications to broader social context.

Course Outcomes

Semester	Course Code		Course Outcomes	Blooms Taxonomy
III	**317K04**	CO1	Demonstrate the basic object oriented programming concepts.	U
		CO2	Identify concepts like control statements, constructors, inheritance and polymorphism.	R
		CO3	Apply the concepts of interface, packages and applets to handle various exceptions.	A
		CO4	Express the ideas of threads and its life cycle.	U
		CO5	Interpret the concepts of remote method invocation.	U
		CO6	Design, develop and identify complex GUI using java swing classes.	A
	317K05	CO1	Identify the core concepts of computer graphics.	R
		CO2	Summarise the working and usage of Input output and video display devices.	U
		CO3	Compute the concepts of geometrical transformations and conversion techniques.	U
		CO4	Execute the ideas by employing principles of animation techniques in all aspects of drawing.	A
		CO5	Extrapolate the usage of tools such as authoring tools, hypermedia and GUI.	U
		CO6	Deduce the facility with relevant mathematics of computer graphics.	U
	317K06	CO1	Recognise the fundamentals of Operating Systems.	R
		CO2	Summarise the various device and resource management techniques for timesharing and distributed systems.	U
		ÇO3	Classify the mechanisms involved in Deadlock and memory management.	U
		CO4	Analyze the mechanisms adopted for file sharing in distributed Applications.	A
		CO5	Estimate the storage management policies with respect to different storage management technologies.	U
		CO6	Analyze the disk scheduling algorithms, file system, mass storage and garbage collection in a modern computer system.	A
	317KP3	CO1	Apply an object-oriented approach to developing applications of varying complexities	A

Department of Computer

		CO2	Implement GUI interfaces for a computer program to interact with users, and to understand the event-based GUI handling principles.	A
		ÇO3	Operate source code using various Java tools.	A
		CO4	Generate the Critical thinking and stimulate them towards Technology Usage.	A
		CO5	Apply Graphics, Animations and Multithreading for designing simulation and real time applications.	A
		CO6	Implement the client server processing using RMI.	A
	317NFM	CO1	Generate communication using internet through mails.	A
		CO2	Operate on various applications and update their knowledge.	A
		ÇO3	Apply and search for various jobs based on their needs.	A
		CO4	Create blog, post and review the ideas of other members.	A
		CO5	Assess through world-wide information.	A
		CO6	Implement format conversion via online.	A
	317KS1	CO1	Generate communication using internet through mails.	A
		CO2	Operate on various applications and update their knowledge.	A
		ÇO3	Apply and search for various jobs based on their needs.	A
		CO4	Review various commercial websites.	A
		CO5	Utilize resources through world-wide information.	A
		CO6	Use online for purchasing products.	A
IV	417K07	CO1	Comprehend about Visual Basic's Integrated Development Environment (IDE) and tools.	R
		CO2	Discuss the usage of variables and data types and its syntax rules, conditional statements and loops for program development.	U
		ÇO3	Apply the procedures, sub-procedures and functions, arrays to create manageable codes.	A
		CO4	Develop windows applications using forms, controls and events.	A
		CO5	Operate on data from a database using windows applications.	A
		CO6	Use different classes for binding data.	A
	417K08	CO1	Identify the basic database design and appreciate its applications.	R
		CO2	Examine the concept of relational algebra expressions using queries.	U
		ÇO3	Summarise the basics of SQL and query a database using SQL commands.	U
		CO4	Apply a database schema for any commercial problem domain using E-R method.	A

		CO5	Implement the normalization theory in a database.	A
		CO6	Utilize the concepts of Functional dependencies.	A
	417K09	CO1	Express the principles of large scale software systems, and the processes that are used to build them	U
		CO2	Design applicable solutions in one or more application domains using software engineering approaches.	A
		ÇO3	Describe the ideas about software system solutions.	R
		CO4	Apply written, oral, and graphical communication in both technical and non-technical environments.	A
		CO5	Solve engineering problems and ability to engage in life-long learning.	A
		CO6	Compute software testing techniques in commercial environment.	U
	417KP4	CO1	Create simple application using window controls.	A
		CO2	Built arithmetic operations, manipulation of text using controls.	A
		ÇO3	Implement the ADO and DAO controls in application that is accessing database.	A
		CO4	Design and implement a database schema.	A
		CO5	Use DDL/DML Commands to design and query a database.	A
		CO6	Apply knowledge in managing transactions using TCL commands.	A
	417KS2	CO 1	Design and host a user friendly website using HTML.	A
		CO 2	Apply graphics and tables in web pages.	A
		CO 3	Create dynamic web page using DHTML and CSS.	A
		CO 4	Develop a static and dynamic web page using Java Script.	A
		CO 5	Prepare a Web page to give a links between frames.	A
		CO 6	Assess a web page for a Text fields.	A
	417ALK	CO1	Describe the basic concepts of cloud computing and its types.	R
		CO2	Generalise the core issues of cloud computing such as security, privacy, and interoperability.	A
		ÇO3	Analyze the benefits of cloud computing storage and data security.	A
		CO4	Examine the appropriate cloud computing solutions and applications used.	U
		CO5	Interpret the data privacy factors used in business applications.	U
		CO6	Examine different cloud computing services.	U

V	**517K10**	**CO1**	State Dot Net's integrated development environment (IDE), implement the concept of object oriented programming and usage of operators.	**R**
		CO2	Use conditional statements, loops for program development and arrays to create manageable codes.	**A**
		ÇO3	Apply the procedures and structures, working with multiple document interfaces (MDI) forms.	**A**
		CO4	Built and update data from database in windows application via ADO.Net.	**A**
		CO5	Utilize library functions and develop windows applications using advanced controls.	**A**
		CO6	Explain Security in the .NET framework and Deployment in the .NET	**U**
	517K11	**CO1**	Describe the basic concepts of computer network and internet.	**R**
		CO2	Deduce the basic types of signals, error detection and correction including parity.	**U**
		ÇO3	Discuss about routing and packet switching, Ethernet and other physical technologies.	**U**
		CO4	Analyse various types of networks and protocols.	**A**
		CO5	Distinguish the concepts of network security and network operations.	**U**
		CO6	Recognise the protection of internet access and firewall.	**R**
	517K12	**CO1**	Identify the concepts of data mining and understand the Data Cleaning, integration, reduction and transformation methods.	**R**
		CO2	Summarise the concepts of Pattern Mining.	**U**
		ÇO3	Explain the basic concepts of Classification.	**U**
		CO4	Examine the basic concepts and methods of Cluster Analysis.	**U**
		CO5	Apply the concepts of Data Warehousing and Data Mining.	**A**
		CO6	Prepare the design and model of Data Warehousing.	**A**
	517KP5	**CO1**	Design and develop programs with GUI interface.	**A**
		CO2	Implement list and loops with VB.Net controls.	**A**
		ÇO3	Built multiple forms, modules and menus into working VB.Net solutions.	**A**
		CO4	Analyse the concept of file management.	**A**
		CO5	Implement and connect with data source.	**A**
		CO6	Demonstrate Component services.	**A**
	517SE1/ 517GE1/ 517KE1	**CO1**	Describe the functions to build data center networking for switch network.	**R**
		CO2	Implement different types of RAID and their benefits.	**A**

		ÇO3	Discuss about the importance of fiber channel protocols and how to communicate with each other.	U
		CO4	Examine the benefits of different network storage options for different application environments.	U
		CO5	Analyze different role in providing disaster recovery and business continuity capabilities.	A
		CO6	Interpret the storage infrastructure and management activities.	U
	517SE2/ 517GE2/ 517KE2	CO1	To acquire the concept areas of language translation and compiler design	R
		CO2	To gain the knowledge of lexical analysis.	R
		ÇO3	To extend the knowledge of parser by parsing LR parser	U
		CO4	To define the syntax, translator and use symbol table	A
		CO5	To learn the code optimization techniques to improve the performance of a program in terms of speed & space.	A
		CO6	To acquire the knowledge of compiler & its features	U
	517KS3	CO1	Recognise animated digital multimedia content using tools and techniques.	R
		CO2	Design layers, backgrounds that incorporates principles of speed, color and accuracy.	A
		ÇO3	Create the knowledge of manipulating, morphing, editing, graphics and text etc.,	A
		CO4	Utilize tween and motion to morph shapes.	A
		CO5	Develop the idea of creating symbols using action scripts and libraries.	A
		CO6	Use various tools and tactics to produce an interactive animation.	A
VI	**617K13**	CO1	Specify the ASP.Net environment and languages for programming development.	R
		CO2	Built dynamic website application.	A
		ÇO3	Demonstrate ASP.Net objects and their interactivity	U
		CO4	Interpret the ideas of scope and session in ASP.Net.	U
		CO5	Apply the concepts of SQL and its commands for query building.	A
		CO6	Utilize session and controls to relate information for user in multi-user web applications.	A
	617K14	CO1	Identify the server side scripting methods and basics of PHP.	R
		CO2	Characterize different types of string handling functions and working of arrays.	A
		ÇO3	Implement object oriented concepts, cookies & sessions.	A
		CO4	Associate the exception handling concepts in hypertext preprocessor.	U

		CO5	Develop knowledge in integrating database with scripting language.	A
		CO6	Compute database to fetch, store and update persistent information.	U
	617KP6	CO1	Create simple application using standard .Net Controls	A
		CO2	Develop a data driven web application	A
		ÇO3	Implement and connect data using data source	A
		CO4	Built interactive web page using PHP	A
		CO5	Analyze and solve various database tasks using PHP	A
		CO6	Execute database activities in dynamic web pages	A
	617SE3/ 617GE3/ 617KE3	CO1	Comprehend the core concepts, background technologies and sub-domains of IoT.	R
		CO2	Explain IoT devices using sensors, micro controllers and communications interface.	U
		ÇO3	Discuss various application layer protocol and web services architecture for combining various components of IoT ecosystems.	U
		CO4	Interpret API and commercial architectures, industrial platforms and services.	U
		CO5	Utilize IoT technologies, design and tools.	A
		CO6	Built knowledge in industrial automation and real world design constraints.	A
	617SE4/ 617GE4/ 617KE4	CO1	Express the concepts and features of mobile computing technologies and its applications with cellular networks design.	U
		CO2	Recognize the capabilities of next-generation networks and the role of wireless technologies in network design and operation.	R
		ÇO3	Evaluate wireless network topologies, wireless connectivity and characteristics, with the impact of wireless networks on security and Internet communications.	A
		CO4	Explain the structure and components for Mobile IP and Mobility Management	U
		CO5	Create an awareness of professional and ethical issues, in particular those relating to security and privacy of user data and user behavior.	A
		CO6	Predict the important issues of developing mobile computing systems and applications.	A
	617KPV	CO1	Examine and finalize problem statement by surveying variety of domains.	U
		CO2	Apply advanced programming techniques.	A
		ÇO3	Define solutions for framed problem statement by reviewing the literature.	R

		CO4	Implement hardware and software techniques for identified problems.	**A**
		CO5	Analyze and test the modules of planned project.	**A**
		CO6	Develop technical reports and deliver presentation.	**A**
	617KS4	**CO1**	Describe the concept of multimedia system.	**R**
		CO2	Create different textural effects and weaves in the designing.	**A**
		ÇO3	Develop animation effects and draw a new thinks.	**A**
		CO4	Apply the concept of 3D graphics and effect with stroke.	**A**
		CO5	Built the animated gif images and glow effects.	**A**
		CO6	Apply various animation options for high level graphics.	**A**
	617ALK	**CO1**	Identify the basic concepts of Big data analytics and R language.	**R**
		CO2	Analyze the Hadoop and Map Reduce techniques associated with Big Data Analytics.	**A**
		ÇO3	Apply the concepts of Hadoop system components.	**A**
		CO4	Extrapolate the data analytics of R and Hadoop.	**U**
		CO5	Compute data on distributed file system in database.	**U**
		CO6	Apply machine learning techniques using R.	**A**