DEPARTMENT OF COMPUTER SCIENCE

B.Sc. Computer Science

Courses Offered 2017 - 2020

Semester	Course	Subject Code	Paper	Hours / Week	Credit
I	**Part I**	TL1711 FL1711	Language : Tamil French	6	3
	Part II	GE1714	General English	6	3
	Part III	SC1711	Major Core I: Programming in C	4	4
		SC17P1	Practical I: Programming in C Lab	4	2
		SA1711	Allied I: Theory : Digital Computer Fundamentals	4	4
	Part IV	AEC171	Ability Enhancement Compulsory Course (AECC) : English Communication	2	2
		SNM171	Non Major Elective Course(NMEC): CorelDraw	4	2
		VEC172	Foundation Course I: Values for Life	-	-
	Part V	SDP172	Skill Development Programme (SDP): Certificate Course	-	-
		STP174	Student Training Programme (STP): Clubs & Committees / NSS	-	-
II	**Part I**	TL1721 FL1721	Language : Tamil French	6	3
	Part II	GE1724	General English	6	3
	Part III	SC1721	Major Core II: Object Oriented Programming in C++	4	4
		SC17P2	Practical II: Programming in C++ Lab	4	2
		SA1721	Allied II: Theory: PC Hardware and Troubleshooting	4	4
	Part IV	AEC172	Ability Enhancement Compulsory Course (AECC): Environmental Studies	2	2
		SNM172	Non Major Elective Course (NMEC): Internet and its Applications	4	2
		VEC172	Foundation Course I: Values for Life	-	1
	Part V	SDP172	Skill Development Programme (SDP): Certificate Course	-	1
		STP174	Student Training Programme (STP): Clubs & Committees / NSS	-	-
		SC1731	Major Core III: Programming in Java	5	4

III	**Part III**				
		SC1732	Major Core IV: Microprocessor and Assembly Language Programming	5	4
		SC1733	Major Core V: Data Structures and Algorithms	5	4
		SC17P3	Practical III: Programming in Java Lab	4	2
		SC17P4	Practical IV: Data Structure using C++ Lab	4	2
		SA1731	Allied III: Theory: Numerical and Statistical Methods	5	4
	Part IV	SBC173 / SBC174	Skill Based Course (SBC): Yoga / Computer Literacy	2	2
		VEC174	Foundation Course II: Personality Development	-	-
	Part V	STP174	Student Training Programme (STP): Clubs & Committees / NSS	-	-
		SLP173	Service Learning Programme (SLP): Extension Activity (RUN)	-	1
IV	**Part III**	SC1741	Major Core VI: Web Programming	5	4
		SC1742	Major Core VII: RDBMS with Oracle	5	4
		SC1743 SC1744 SC1745	Elective I: (a) System Analysis and Design (b) Software Engineering (c) Object Oriented Analysis and Design	5	5
		SC17P5	Practical V: Web Programming Lab	4	2
		SC17P6	Practical VI: Oracle Lab	4	2
		SA1741	Allied IV: Theory: Operations Research	5	4
	Part IV	SBC173 / SBC174	Skill Based Course (SBC): Yoga / Computer Literacy	2	2
		VEC174	Foundation Course II: Personality Development	-	1
	Part V	STP174	Student Training Programme (STP): Clubs & Committees / NSS	-	1
V	**Part III**	SC1751	Major Core VIII: Web Technology	6	5
		SC1752	Major Core IX: Operating Systems	5	5
		SC1753 SC1754 SC1755	Elective II (a) Data Communication and Computer Networks (b) Data Mining (c) Image Processing	5	5

		SC17P7	Practical VII: Web Technology Lab	6	3
		SC17PR	Project	6	5
	Part IV	SSK175	Skill Based Course (*SBC): Photoshop	2	2
		HRE175	Foundation Course III: Human Rights Education (HRE)	-	1
VI	**Part III**	SC1761	Major Core X: Android Application Development	5	5
		SC1762	Major Core XI: Computer Graphics and Multimedia	5	5
		SC1763	Major Core XII: UNIX and Shell Programming	5	5
		SC1764 SC1765 SC1766	Elective III (a) Mobile Computing (b) Client / Server Technology (c) Artificial Intelligence and Expert System	5	5
		SC17P8	Practical VIII: Android Application Development Lab	4	2
		SC17P9	Practical IX: Computer Graphics and Multimedia Lab	4	2
	Part IV	SSK176	Skill Based Course (*SBC): Dreamweaver CS4	2	2
		WSC176	Foundation Course IV: Women's Studies (WS)	-	1
			TOTAL	**180**	**140+3**

B.Sc. Programme Outcomes (POs)

PO No.	Upon completion of B.Sc. Degree Programme, the graduates will be able to :
PO - 1	Apply the acquired scientific knowledge to face day to day needs
PO - 2	Create innovative ideas through laboratory experiments.
PO - 3	Carry out field works and projects independently and in collaboration with institutions and industries
PO - 4	Reflect upon green initiatives and take responsible steps to build a sustainable environment.
PO - 5	Face challenging competitive examinations that offer rewarding careers in science and education.
PO - 6	Impart communicative skills and ethical values
PO - 7	Equip students with hands on training through various courses to enhance entrepreneurship skills

PROGRAMME SPECIFIC OUTCOMES (PSOs)

PSOs	*Upon completion of B.Sc. Degree Programme, the graduates of Computer Science will be able to :*	PO
PSO - 1	Understand the principles and working of the hardware and software aspects of the Computer system	1
PSO - 2	Acquire the knowledge of data which leads them as data analyst	1
PSO - 3	Develop sound knowledge base and skills sets to develop and expand professional careers in field related to human - computer interaction	5
PSO - 4	An ability to design Web Sites, Mobile Applications and Internet of things	2
PSO - 5	Provide computational solution to complex manual problems	7
PSO - 6	Communicate effectively to improve their competency skills to solve real time problems.	6
PSO - 7	Excel in the fields of Information Technology and its Enabled services, Government and Private sectors, Teaching and Research.	5
PSO - 8	Employ modern computing languages and applications for their successful career, to become an entrepreneur and a relish for higher studies.	7
PSO - 9	Work effectively in teams to design and implement solutions to computational problems	6
PSO - 10	Develop entrepreneurial skills, empowered according to the professional requirement and become self - dependent.	7
PSO - 11	Acquire independent thinking, possess problem - solving skills, and excel in the capability for self - learning to allow for life - long learning.	3
PSO - 12	Apply knowledge of principles, concepts in specific subject areas to analyze their local and global impact	4

Course Outcomes

Semester : I **Major Core I**

Name of the Course : Programming in C

Subject code : SC1711

CO	Upon completion of this course the students will be able to :	PSO addressed	CL
CO - 1	Recall the basic structure and key elements.	PSO - 1	R
CO - 2	Understand the fundamentals of C programming	PSO - 2	U
CO - 3	Analyze the various programming constructs and implement it to perform specific task.	PSO - 3	AN,AP
CO - 4	Design and develop modular programming skills	PSO - 3	C

Semester : I **Practical I**

Name of the Course : Programming in C Lab

Subject code : SC17P1

CO	Upon completion of this course the students will be able to :	PSO addressed	CL
CO - 1	Understand and solve simple physical problems	PSO - 6	U
CO - 2	Solve mathematical equations using C programs	PSO - 9	AP
CO - 3	Write simple C programs to define the key concepts	PSO - 3	R
CO - 4	Develop simple C programs	PSO - 12	C

Semester : I **Allied - Theory**

Name of the Course : Digital Computer Fundamentals

Subject code : SA1711

CO	Upon completion of this course the students will be able to :	PSO addressed	CL
CO - 1	Understand the basic architecture of Computer system	PSO - 1	U
CO - 2	Understand the various Input, Output Devices	PSO - 9	U
CO - 3	Perform conversions among different number systems	PSO - 12	AP
CO - 4	Became familiar with basic logic gates and understand Boolean algebra and simplify simple Boolean functions by using basic Boolean properties	PSO - 3	AN,U
CO - 5	Design of sequential Circuits such as Flip - Flops, Registers, and Counters.	PSO - 7	C
CO - 6	Design of combinational circuits such as MUX, DEMUX, Encoder and Decoder etc.	PSO - 11	AP

Semester : I NMEC
Name of the Course : Corel Draw
Subject code : SNM171

CO	Upon completion of this course the students will be able to :	PSO addressed	CL
CO - 1	Create Professional illustration for designing magazines, Company logo, Brochures, Book Cover, Visiting Card	PSO - 10	AP
CO - 2	Develop images of the highest Quality	PSO - 3	AN
CO - 3	Illustrate Sufficient knowledge about Corel Basic	PSO - 3	AP
CO - 4	Understand tools for creating, drawing, text manipulation and output options for printing.	PSO - 10	R
CO - 5	Importing, Exporting, Printing, Applying Effects used in order to manipulate Images.	PSO - 11	C

Semester : II Major Core II
Name of the Course : Object Oriented Programming in C++
Subject code : SC1721

CO	Upon completion of this course the students will be able to :	PSO addressed	CL
CO - 1	Outline the basic concepts of OOPs	PSO - 1	U
CO - 2	List out the tokens used in C++ programming language	PSO - 1	R
CO - 3	Design OOPs concepts through C++ programs for solving mathematical problems.	PSO - 3	AP
CO - 4	Build knowledge about important concepts like functions, classes and constructors.	PSO - 5	AN
CO - 5	Develop skill to make use of arrays and pointers in C++ programs.	PSO - 3	C
CO - 6	Make use of file concept to store and edit data through C++ programs.	PSO - 5	E

Semester : II **Practical II**

Name of the Course : Programming in C++ Lab

Subject code : SC17P2

CO	Upon completion of this course the students will be able to :	PSO addressed	CL
CO - 1	Understand and solve simple physical problems	PSO - 5	U
CO - 2	Solve mathematical equations using C programs	PSO - 2	AP
CO - 3	Write simple C programs to define the key concepts	PSO - 2	R
CO - 4	Develop simple C programs	PSO - 5	C

Semester : II **Allied - Theory**

Name of the Course : PC Hardware and Troubleshooting

Subject code : SA1721

CO	Upon completion of this course the students will be able to :	PSO addressed	CL
CO - 1	Understand processor specifications ,processor upgrades , processor troubleshooting techniques	PSO - 2	U
CO - 2	Understand the features & functions of motherboard	PSO - 7	U
CO - 3	Differentiate the internal memory storage	PSO - 3	U
CO - 4	Understand the concept of BIOS	PSO - 4	U
CO - 5	Assemble and maintain the system	PSO - 10	AP

Semester : II **NMEC**

Name of the Course : Internet and its Applications

Subject code : SNM172

CO	Upon completion of this course the students will be able to :	PSO addressed	CL
CO - 1	Understand the basic of computer system	PSO - 1	U
CO - 2	Understand the significance of internet applications	PSO - 1	U
CO - 3	Create own email ID and able to work with it.	PSO - 3	C
CO - 4	Create simple HTML programs	PSO - 4	C

Semester : III **Major Core III**

Name of the Course : Programming in Java

Subject code : SC1731

CO	Upon completion of this course the students will be able to :	PSO addressed	CL
CO - 1	Define the Concept of OOP	PSO - 2	R
CO - 2	Understand the Structure of the Java programming Language	PSO - 1	U
CO - 3	Implement various Errors handling technique using Exception Handling to solve complicated problem.	PSO - 12	A
CO - 4	Understand the Applet program to display window based Activities.	PSO - 5	U
CO - 5	Create Java programs that solve Simple business Problems	PSO - 6	C

Semester : III **Major Core IV**

Name of the Course : Microprocessor and Assembly Language Programming

Subject code : SC1732

CO	Upon completion of this course the students will be able to :	PSO addressed	CL
CO - 1	To understand basic architecture of 8 bit microprocessor	PSO - 9	R
CO - 2	Understand and realize the Interfacing of memory & various I/O devices with 8085 microprocessor	PSO - 2	U
CO - 3	Understand and classify the instruction set of 8085 microprocessor and distinguish the use of different instructions and apply it in assembly language programming.	PSO - 6	AP
CO - 4	Understand the difference between 8085 and advanced microprocessor.	PSO - 12	U

Semester : III **Major Core V**

Name of the Course : Data Structures and Algorithms

Subject Code : SC1733

CO	Upon completion of this course the students will be able to :	PSO addressed	CL
CO - 1	Define basic static and dynamic data structures and relevant standard algorithm for them	PSO - 2	R
CO - 2	Demonstrate advantages and disadvantages of specific algorithms and data structures	PSO - 2	U
CO - 3	Select basic data structures and algorithms for simple programs	PSO - 11	AP
CO - 4	Determine and demonstrate bugs in program, recognizes needed basic operations with data structures	PSO - 10	E
CO - 5	Formulate new solutions for programming problems.	PSO - 5	C
CO - 6	Analyze algorithms and data structures in terms of time and space complexity of basic operations	PSO - 12	AN

Semester : III **Practical III**

Name of the Course : Programming in Java Lab

Subject code : SC17P3

CO	Upon completion of this course the students will be able to :	PSO addressed	CL
CO -1	Create a java program to calculate simple mathematical problems.	PSO - 5	C
CO - 2	Create a java program using Error handling technique	PSO - 2	C
CO - 3	Create Applet program to implement window based Activities	PSO - 3	C

Semester : III **Practical IV**

Name of the Course : Data Structure Using C++ Lab

Subject Code : SC17P4

CO	Upon completion of this course the students will be able to :	PSO addressed	CL
CO - 1	Define basic static and dynamic data structures and relevant standard algorithms for them: stack, queue, dynamically linked lists, trees, graphs, sorting algorithms.	PSO - 5	AP
CO - 2	Demonstrate advantages and disadvantages of specific algorithms and data structures	PSO - 2	AP
CO - 3	Select basic data structures and algorithms for autonomous realization of simple programs or program parts	PSO - 11	AP

Semester : III **Allied - Theory**

Name of the Course : Numerical and Statistical Methods

Subject code : SA1731

CO	Upon completion of this course the students will be able to :	PSO addressed	CL
CO - 1	Solve an algebraic and Transcendental Equations using an appropriate numerical methods	PSO - 1	C
CO - 2	Find an error analysis for a given numerical method	PSO - 6	R
CO - 3	Solve a simultaneous equation using an appropriate numerical method	PSO - 5	C
CO - 4	Find inverse of a matrix using Back Substitution method	PSO - 5	R
CO - 5	Find a polynomial using interpolation methods	PSO - 6	R
CO - 6	Determine correlation and rank correlation coefficient between two variables	PSO - 9	E
CO - 7	Find a regression equations using the given data	PSO - 9	R
CO - 8	Acquire problem solving techniques and Baye's Theorem to solve real world problems	PSO - 11	AP

Semester : IV **Major Core VI**

Name of the Course : Web Programming

Subject code : SC1741

CO	Upon completion of this course the students will be able to :	PSO addressed	CL
CO - 1	Understand the fundamentals of Web application design, development, and deployment using .NET framework.	PSO - 1	R
CO - 2	Develop data driven Web Applications.	PSO - 3	U
CO - 3	Use the Visual Studio IDE to create and debug application and Projects.	PSO - 5	AP
CO - 4	Understand the fundamentals of developing modular application by using object - oriented methodologies.	PSO - 10	U
CO - 5	Create Windows Forms applications in C# by using the .NET Framework.	PSO - 11	AP
CO - 6	Develop web applications using server - side technologies (ASP.NET, ADO.NET).	PSO - 4	AP

Semester : IV **Major Core VII**

Name of the Course : RDBMS with Oracle

Subject code : SC1742

CO	Upon completion of this course the students will be able to :	PSO addressed	CL
CO - 1	Describe basic concept of data base System	PSO - 2	U
CO - 2	Define the logical design of database including E - R Model and Normalization approach	PSO - 2	R
CO - 3	Understand and apply the basic of SQL and Construct queries using SQL	PSO - 9	U
CO - 4	Apply RDBMS for industry Application	PSO - 9	A
CO - 5	Design and implement a database schema for a given problem domain.	PSO - 5	C

Semester : IV **Major - Elective I**

Name of the Course : System Analysis and Design

Subject code : SC1743

CO	Upon completion of this course the students will be able to :	PSO addressed	CL
CO - 1	Define system and phases of the system development life cycle.	PSO - 1	R
CO - 2	Explain the principles, methods and techniques of system development.	PSO - 6	U
CO - 3	Analyze and model organizational work.	PSO - 3	AN
CO - 4	Develop system project documentation	PSO - 3	C
CO - 5	Estimate the budget needed to complete a project	PSO - 11	E
CO - 6	Design and develop proposed system that assists programmers in implementing the systems.	PSO - 7	C

Semester : IV **Elective I**

Name of the Course : Software Engineering

Subject code : SC1744

CO	Upon completion of this course the students will be able to :	PSO addressed	CL
CO - 1	Design and conduct experiments, as well as to analyze and interpret data	PSO - 9	C
CO - 2	Identify, formulate and solve engineering problems	PSO - 9	AP
CO - 3	Analyze design, verify, validate, implement, apply and maintain software systems	PSO - 5	AP
CO - 4	Understand the professional and ethical responsibility	PSO - 10	U

Semester : IV Elective I

Name of the Course : Object Oriented Analysis and Design

Subject code : SC1745

CO	Upon completion of this course the students will be able to :	PSO addressed	CL
CO - 1	Define the Concept of Object - Oriented method for analysis and design.	PSO - 2	R
CO - 2	Understand the Key Principle in OO analysis, design ,and development	PSO - 9	U
CO - 3	Describe Object Oriented Analysis and Design concepts and apply them to solve problems.	PSO - 6	A

Semester : IV Practical V

Name of the Course : Web Programming Lab

Subject code : SC17P5

LO	Upon completion of this course the students will be able to :	PSO addressed	CL
LO - 1	Create fully functional data driven applications using ADO.Net	PSO - 4	C
LO - 2	Create dynamic Web applications that interact with a database using server - side programming.	PSO - 2	C
LO - 3	Recognize and evaluate website organizational structure and design elements using Asp.Net.	PSO - 11	R
LO - 4	Develop Windows Forms Applications and data driven applications using various controls.	PSO - 10	AP

Semester : IV Practical VI

Name of the Course : Oracle Lab

Subject code : SC17P6

LO	Upon completion of this course the students will be able to :	PSO addressed	CL
LO - 1	Understand the logical structure of the RDBMS	PSO - 2	U
LO - 2	Understand How the data will be stored and retrieved	PSO - 2	U
LO - 3	Understand the PL/SQL to do such things as codify your business rule.	PSO - 5	U

Semester : I V **Allied - Theory**

Name of the Course : Operations Research

Subject code : SA1741

CO	Upon completion of this course the students will be able to :	PSO addressed	CL
CO - 1	Recall the basic structure and key elements.	PSO - 5	R
CO - 2	Understand the fundamentals of Operations Research	PSO - 12	U
CO - 3	Analyze the various problem constructions and implement it to perform specific task.	PSO - 9	AN,AP
CO - 4	Develop Problem solving skills	PSO - 11	C

Semester : V **Major Core VIII**

Name of the Course : Web Technology

Subject code : SC1751

CO	Upon completion of this course the students will be able to :	PSO addressed	CL
CO - 1	Develop an ability to design and implement static and dynamic web pages.	PSO - 4	C
CO - 2	Differentiate web applications using client - side (JavaScript, HTML, XML) and server - side technologies (ASP.NET, ADO.NET).	PSO - 7	AP
CO - 3	Define the fundamental ideas and standards underlying Web Service Technology	PSO - 1	U
CO - 4	Apply the knowledge of the internet and related internet concepts that are vital in understanding web application development and analyze the insights of internet programming to implement complete application over the web.	PSO - 11	AP

Semester : V **Major Core IX**

Name of the Course : Operating Systems

Subject code : SC1752

CO	Upon completion of this course the students will be able to :	PSO addressed	CL
CO - 1	Analyze the structure of OS and basic architectural components involved in OS design	PSO - 12	AN
CO - 2	Analyze the applications to run in parallel either using process or thread models of different OS	PSO - 6	AN
CO - 3	Describe the various device & resource management techniques for timesharing & distributed systems	PSO - 9	U
CO - 4	Understand the mutual exclusion ,deadlock detection of distributed operating system	PSO - 7	U
CO - 5	Apply the mechanisms adopted for file sharing in distributed applications	PSO - 4	AP

Semester : V Major - Elective II

Name of the Course : Data Communication and Computer Networks

Subject code : SC1753

CO	Upon completion of this course the students will be able to :	PSO addressed	CL
CO - 1	Independently understand basic computer network technology.	PSO - 1	U
CO - 2	Understand and explain Data Communications System and its components.	PSO - 2	U
CO - 3	Identify the different types of network topologies and protocols	PSO - 3	U
CO - 4	Enumerate the layers of the OSI model and TCP/IP. Explain the function(s) of each layer.	PSO - 12	U
CO - 5	Apply the different types of network devices and their functions within a network	PSO - 3	AP
CO - 6	Familiarity with the basic protocols of computer networks, and how they can be used to assist in network design and implementation.	PSO - 9	AP

Semester : V Major - Elective II

Name of the Course : Data Mining

Subject code : SC1754

CO	Upon completion of this course the students will be able to :	PSO addressed	CL
CO - 1	To expands knowledge and skills gained in database management and look in depth at the data mining methods	PSO - 2	U
CO - 2	Evaluate and implement a wide range of emerging and newly - adopted methodologies and technologies to facilitate the knowledge discovery.	PSO - 9	AN
CO - 3	Discover and measure interesting patterns from different kinds of Databases.	PSO - 11	AP
CO - 4	Discover interesting patterns from large amounts of data to analyze and extract patterns to solve problems.	PSO - 12	U,C,AP,

Semester : V **Major - Elective II**

Name of the Course : Image Processing

Subject code : SC1755

CO	Upon completion of this course the students will be able to :	PSO addressed	CL
CO - 1	Recall the basic image related concepts	PSO - 1	R
CO - 2	Interpret image compression, image segmentation, representation techniques	PSO - 1	U
CO - 3	Categorized various compression techniques	PSO - 7	AP
CO - 4	Analyze images in the frequency domain using various transforms.	PSO - 12	AN
CO - 5	Evaluate the techniques for image enhancement.	PSO - 11	E

Semester : V **Practical VII**

Name of the Course : Web Technology Lab

Subject code : SC17P7

CO	Upon completion of this course the students will be able to :	PSO addressed	CL
CO - 1	Analyze a web page and identify its elements and attributes using XML.	PSO - 12	AN
CO - 2	Build interactive web page using HTML.	PSO - 4	C
CO - 3	Construct and manipulate PHP applications	PSO - 2	AP
CO - 4	Develop dynamic web pages using client side programming and server side programming.	PSO - 8	C
CO - 5	Identify, formulate and analyze problems as well as identify the computing requirements appropriate to their solutions.	PSO - 7	U
CO - 6	Understand and apply CSS definitions for document Presentation.	PSO - 6	AP

Semester : V SBC

Name of the Course : Photoshop

Subject code : SSK175

CO	Upon completion of this course the students will be able to :	PSO addressed	CL
CO - 1	Understand retouch and repair a scanned photograph.	PSO - 10	AP
CO - 2	Create abilities to use Photoshop that are employable and rewarding.	PSO - 3	C
CO - 3	Understand how to do basic photo repairs and color enhancements techniques.	PSO - 11	AP
CO - 4	Define and apply the basic functions of pixel selection, painting and editing tools	PSO - 5	R
CO - 5	Understand file compression, Import and export files and save files in different formats	PSO - 11	AN
CO - 6	Utilize retouching features to make picture perfect	PSO - 11	C

Semester : VI Major Core X

Name of the Course : Android Application Development

Subject code : SC1761

CO	Upon completion of this course the students will be able to :	PSO addressed	CL
CO - 1	Describe the platforms upon which the Android OS will run	PSO - 2	U
CO - 2	Apply the fundamental paradigms and technologies to develop mobile applications	PSO - 5	AP
CO - 3	Create a simple application that runs under the Android operating system	PSO - 4	C
CO - 4	Develop an application that uses multimedia under Android operating system	PSO - 10	C
CO - 5	Implement various methods in Android to create mobile applications for communication network	PSO - 9	AP

Semester : VI Major Core XI

Name of the Course : Computer Graphics and Multimedia

Subject code : SC1762

CO	Upon completion of this course the students will be able to :	PSO addressed	CL
CO - 1	Understand fundamental principles of computer graphics	PSO - 12	U
CO - 2	Discuss algorithms for 2D and 3D transformations	PSO - 9	U
CO - 3	Interpret simple problems in the basic representation and handling of multimedia data (images, audio and animation	PSO - 4	AP
CO - 4	Create simple 2D animations, 3D animations	PSO - 5	AP

Semester : VI Major Core XII

Name of the Course : UNIX and Shell Programming

Subject code : SC1763

CO	Upon completion of this course the students will be able to :	PSO addressed	CL
CO - 1	Identify set of commands in UNIX	PSO - 1	R
CO - 2	Describe the features & functions of an operating system.	PSO - 1	U
CO - 3	Customize environment settings using a text editor	PSO - 1	U
CO - 4	Demonstrate UNIX commands for file handling and process control	PSO - 1	AP
CO - 5	Combine several simple commands in order to produce more powerful operations.	PSO - 1	AP
CO - 6	Utilize system utilities to perform administrative tasks	PSO - 1	AP
CO - 7	Analyze the working of the user defined commands and will be able to change the permissions associated with files.	PSO - 3	AN
CO - 8	Create and manage simple file processing operations, organize directory structures with appropriate security	PSO - 3	C
CO - 9	Create, delete, move and rename files and directories	PSO - 1	C

Semester : VI Major - Elective III

Name of the Course : Mobile Computing

Subject code : SC1764

CO	Upon completion of this course the students will be able to :	PSO addressed	CL
CO - 1	Understand the basic concepts and principles in mobile computing	PSO - 1	U
CO - 2	Describe the concepts of Bluetooth, RFID, WiMAX	PSO - 1	U
CO - 3	Acquire and apply the knowledge of GSM and GPRS	PSO - 4	U, AP
CO - 4	Understand the process of CDMA,3G,Wireless LAN	PSO - 4	U
CO - 5	Describe and implementing the security techniques	PSO - 9	AP

Semester : VI Elective III
Name of the Course : Client / Server Technology
Subject code : SC1765

CO	Upon completion of this course the students will be able to :	PSO addressed	CL
CO - 1	Create network connectivity with Client/Server computing	PSO - 8	C
CO - 2	Apply the process of communication technology	PSO - 3	AP
CO - 3	Apply the components of Client/Server technology	PSO - 12	AP
CO - 4	Understand the administration and technologies of the system	PSO - 5	U

Semester : VI Major - Elective III
Name of the Course : Artificial Intelligence and Expert System

Subject code : SC1766

CO	Upon completion of this course the students will be able to :	PSO addressed	CL
CO - 1	Gives the ability to design and program small expert systems.	PSO - 9	U,C
CO - 2	Learn how to analyze the complexity of a given problem and come with suitable optimizations.	PSO - 2	U
CO - 3	Understand mathematical models such as belief networks and Markov decision processes and apply them to a range of AI problems.	PSO - 6	U,AP
CO - 4	Have a glance at machine learning algorithms and extracting knowledge models from data.	PSO - 12	U

Semester : IV Practical VIII
Name of the Course : Android Application Development Lab
Subject code : SC17P8

CO	Upon completion of this course the students will be able to :	PSO addressed	CL
CO - 1	Create application workings with the Activities and Intents	PSO - 4	AP
CO - 2	Create application workings with the User Interface using Views	PSO - 8	AP
CO - 3	Create application workings with Graphics	PSO - 1	AP
CO - 4	Create application workings with Pictures and Menus	PSO - 8	AP

Semester : V1 Practical IX

Name of the Course : Computer Graphics and Multimedia Lab

Subject code : SC17P9

CO	Upon completion of this course the students will be able to :	PSO addressed	CL
CO - 1	Acquaint with the basic principles of 2D and 3D computer graphics.	PSO - 12	AP
CO - 2	Acquaint with algorithms for rasterisation and clipping of 2D graphic primitives and filling of closed regions.	PSO - 9	AP
CO - 3	Learn algorithms for 2D and 3D transformations, visibility solution, lighting, shading and texturing.	PSO - 8	AP

Semester : VI SBC

Name of the Course : Dream Weaver CS4

Subject code : SSK176

CO	Upon completion of this course the students will be able to :	PSO addressed	CL
CO - 1	Implement the Knowledge of Web Publishing	PSO - 4	A
CO - 2	Understand HTML and CSS coding for Websites.	PSO - 8	U
CO - 3	Understand the basic Skills needed to create your own websites	PSO - 4	U
CO - 4	Create professional looking website with Dreamweaver CS4 collection of tools	PSO - 4	C