FATIMA COLLEGE (AUTONOMOUS), MADURAI – 625018

NAME OF THE PROGRAMME: B.SC COMPUTER SCIENCE **PROGRAMME CODE: UACS**

PROGRAMME OUTCOMES:

The learners will be able to

PO1: Apply acquired scientific knowledge to solve complex issues.

PO2: Attain Analytical skills to solve complex cultural, societal and environmental issues.

PO3: Employ latest and updated tools and technologies to analyse complex issues.

PO4: Demonstrate Professional Ethics that foster Community, Nation and Environment Building Initiatives.

PROGRAMME SPECIFIC OUTCOMES:

On completion of B.Sc. Computer Science programme, the students are expected to

PSO 1 Develop professionally competent citizens by applying the scientific knowledge of Computer Science with the ability to think clearly, rationally and creatively to support in evolving solutions to the social/public/scientific issues with responsible democratic participation

PSO 2 Enterprising resourcefulness to identify, plan, formulate, design and evaluate solutions for complex computing problems that address the specific needs with appropriate consideration for Societal, Cultural, Environmental and Industrial domains.

PSO 3 Holistic development to ignite the lateral thinking ability in problem solving, acquisition of new skills, open-minded and organized way of facing problems with self awareness and evolving analytical solutions

PSO 4 Create and initiate innovations effectively and communicate efficiently with the computing community and society at large to bridge the gap between computing industry and academia

PSO 5 Through Digital Literacy, understand, assess and commit to professional and ethical principles, norms and responsibilities of the cyber world and the ability for work efficacy as a part of a team and engage effectively with diverse stakeholders

PSO 6 Ability and willingness to embark on new ventures and initiatives with critical thinking and desire for more continuous learning focusing on life skills.

2019 - 2020

Course Code	Course Title	Nature of the Course (Local/ National/ Regional/ Global)	Course Description	Course Outcomes
19B1CC1	Programming in C	National	To introduce and form a firm foundation in programming. To stress the importance of clarity , simplicity and the efficiency in writing programs	CO1: Identify the basic concepts needed for program development CO2: Apply the basic concepts and develop program to find solutions for simple problems CO3: Design programs to solve complex problems by using suitable control statements CO4: Analyze the problem and design efficient program using functions CO5: Use array and structure to handle

				volume of data
19B1CC2	Lab – I (Programming in C)	National	Improve the skill of writing programs in C Utilize various features in C to various situations	CO1: Develop algorithms to find solutions for simple problems CO2: Analyze the source code and rectify errors if any and bring out necessary solution CO3: Utilize proper control statements to find solution for a given problem CO4: Develop source code using arrays to handle volume of data CO5: Design source code for console applications
19B1NME1	Animation Techniques (NME)	National	To offer a job oriented course and teach them to design animated applications	CO1: Create a movie with simple animation using built-in animation techniques. CO2: Create a movie with improved animation and background using Frame by frame animation.

				CO3: Design a movie with many scenes using motion tween technique and multilayer concept. CO4: Design a complex movie with more objects and enhanced animation using symbols. CO5: Design a interactive animation using buttons and movie clip symbols.
19B2CC3	Programming in C++	National	To introduce Object Oriented Programming concepts using C++ and improve their OOP Skill.	CO1: Compare Procedure-oriented programming and the evolution of Object oriented programming CO2: Identify basic concepts of OOP, benefits and its applications. CO3: Write object oriented programs using classes and objects. CO4: Design object oriented programs that can focus on reusability – Inheritance.

				CO5: Utilize runtime polymorphism with pointers and virtual functions and File concepts.
19B2CC4	Lab – II (Programming In C++)	National	To enable the learner to write, debug and test the programs written using OOP	CO1: Write programs using Object oriented programming paradigm – Encapsulation (Classes and objects), Polymorphism and Inheritance. CO2: Apply various features like constructors and destructors, overloading- function and operators CO3: Utilize different types of inheritance to suit different applications. CO4: Design to write programs using Object oriented programming paradigm that enables runtime polymorphism using pointers and virtual functions. CO5: Apply Object oriented programming paradigm for flat file organization.

				(Sequential and Random access
19B2AC2	Computer System Architecture (Allied -II)	National	To understand the organization and design of basic digital computer. To understand the procedure for implementing the arithmetic algorithm in digital hardware. To discuss the techniques that computers use to communicate with I/O devices and Memory.	CO1: Outline the structure of a basic computer system and explain the role of functional units CO2: Explain the instruction cycle according to the type and addressing mode of the instruction CO3: Design the control logic circuit for various digital circuits such as registers, memory and adder - logic circuit of a basic computer system CO4: Identify the memory requirement of a CPU, select the memory chips and design a mapping circuit CO5: Explain the structure and the usage of various interfacing devices needed for connecting peripheral devices with the CPU

19B2NME2	Animation Techniques (Nme)	National	To offer a job oriented course and teach them to design animated applications	CO1: Create a movie with simple animation using built-in animation techniques. CO2: Create a movie with improved animation and background using Frame by frame animation. CO3: Design a movie with many scenes using motion tween technique and multilayer concept. CO4: Design a complex movie with more objects and enhanced animation using symbols. CO5: Design a interactive animation using buttons and movie clip symbols.
COURSE CODE	**COURSE TITLE**	**NATURE OF THE COURSE (LOCAL/NATIONAL/REGIONAL/GLOBAL)**	**COURSE DESCRIPTION**	**COURSE OBJECTIVES**
B3CC5	Data Structures	National	To inculcate the skill	• Identify data structures needed to solve

	And Algorithms		of developing an algorithm with the apt Data Structures.	specific problems • Analyse the data structures for effective use in problem solving • Design and develop efficient algorithms in terms of Space and Time • Troubleshoot algorithms • Analyse time complexity of algorithms
B3CC6	Lab –Iii (Data Structures In C++)	National	Programs to be written using OOP concepts to implement data structures.	• Write efficient programs consuming less memory • Compile and Execute programs using required data structures • Implement the algorithms using C++ • Debug programs
B3SB1	Skill Based Elective-Internet	National	To facilitate the students to explore the basics of internet.	• Discuss the way in which internet is used, classify the different types of connections.

	Programming Paper I Introduction to Internet		To introduce how data can be shared and accessed thru' internet	• Describe the working of web browsers and demonstrate searching the web using effective web browsing tips • Design a simple web site and discuss the method for web hosting. • Identify internet addressing and various internet protocols used for the communication. • Explain the tips and techniques for managing the e-mails and protecting the privacy.
B4CC7	Relational Database System Concepts	National	To impart complete understanding of Relational database concepts and its usage in the real world applications To encapsulate the	• Explain basic architecture, major components behind relational databases, various set operations and their implementation in RDBMS and key advantages of using RDBMS in real world computing. • Assess how SQL evolves as the

			implementation of database system concepts in SQL	communication language to access the data. • Discuss functional dependencies and various forms of normalization in maintaining the integrity of data. • Prepare E-R diagram which represents the data their relationship. • Demonstrate implementation of the relational operators in SQL, Boolean and Arithmetic operators, Pattern matching techniques and Utilize group, date and time functions to handle complex queries.
B4CC8	Lab - IV (Visual Programming)	National	Programs to be written using IDE for window applications	• Write simple programs in VB • Compile, Debug and Execute programs in VB • Design and simulate simple game

				applications • Write programs for the data base applications • Write programs using menu editors and MDI forms
B4SB2	Skill Based Elective- Internet Programming Paper II Web Designing using Html	National	To teach the basic concept of designing a Web page.	• Create simple web page using physical tags • Present the information in standard form in a web page using structure tags supported by the browsers • Design the layout for a web page using browser support tags • Develop a web site with the provision to go around all pages • Design layout for a web document using frames

B5CC9	Programming in Java	National	To understand the fundamental concepts of object-oriented programming and be familiar with the basic language constructs and the core APIs provided by Java.	• Explain the fundamental concepts of object-oriented programming and acquire programming skills using the basic language constructs and the core APIs provided by Java. • Design, write, compile, execute, test, and debug object-oriented programs in Java. • Develop well-documented and structured event handling programs using Applet • Identify the use of Java in a variety of technologies and on different platforms. • Implement GUI based client applications and TCP/ IP and UDP based Network programs
B5CC10	Operating	National	To develop critical	• Explain what operating systems are,

	System Concepts		thinking, inquiring, technology skills to describe and to paraphrase what operating systems are, what they do and how they are designed & construct.	what they do and how they are designed and constructed. • Describe the services an operating system provides to users, processes and other systems • Outline the process concept and assess the methods for process scheduling, Inter-process communication and deadlock handling. • Assess the management of various resources – Process, Memory, Information and Devices and the effective utilization. • Describe the various security threats and attacks and the countermeasures to them.
B5CC11	Lab-V (Programming	National	To develop error-free, well-documented ,	• Design, write, compile, execute, test, and debug object-oriented programs in

	in Java)		structured Java programs and to compile, execute, test, and debug the same	Java. • Write packages, access specifies and interfaces in a program • Write programs to handle exception and implement Multithreading • Develop simple graphical user interfaces for Java Applications and Applets using GUI components such as labels, buttons and Layout Manager • Create Java event-handling model to respond to events arising from the GUI components
B5CC12	Project - I	National	The project work motivates them and also gives insights about Software Development.	• Analyze. Plan and Design a software system • Apply Project Management, Requirement analysis and other Software engineering concepts

				• Exhibit the skill of documenting . • Simulate and test the project with real-time data. • Acquire presentation skills
B5ME1	Major Elective – I Software Engineering	National	Creating students with knowledge to solve real-world problems by providing thorough understanding of all concepts and techniques.	• Explain the basic concepts and techniques. • Plan for building efficient and reliable software. • Analyze the challenges of small to large scale software development. • Identify suitable model for various kind of projects. • Explain the concept of time management, managerial and technical skill required by human resources.
B5ME2	Latest	National	To introduce the basics of various	• Explain the key technologies,

	computing Technologies		computing technologies like Mobile Computing, Soft Computing, Grid computing, Cloud Computing and Green Computing	architecture, strengths, limitations and applications of cloud computing • Describe soft computing techniques and their roles in building intelligent machines • Explain the genesis and applications of grid computing • Explain the approaches to green computing and its future • Describe wireless and mobile communications systems
B5ME3	Data Mining And Data Warehousing	National	To introduce analysis & extraction of knowledge	• Explain the data extraction and transformation techniques. • List the association rule mining techniques and understand association mining to correlation analysis, constraint based association mining.

				• Describe operational database, warehousing and multidimensional need of data base to meet industrial needs. • Explain the components of warehousing, classification methods and clustering analysis. • Identify and discuss the Business analysis, query tools and application, OLAP etc
P5MEB1	Programming With C (Elective offered to Physics)	National	To introduce and form a firm foundation in programming	• Explain the Fundamentals of C programming language. • Write Programs using Control Statements and Loop Structures. • Describe the concept of Array and String Functions. • Explain the concepts of structure and

				File. • Demonstrate the concept of pointers and solve the problem using pointers
B5SB3	Skill Based Elective- Internet Programming Paper III – Client Side Programming Using Java Script& Css	National	To understand the JavaScript language To alter, show, hide and move objects on a web page	• Design a website with boosted styles using style sheets • Design uniform layout for all pages of a website through tags and style sheets • Create a webpage with menu bar to navigate through different pages of a website. • Create a dynamic webpage using java script • Create a webpage with a facility to collect and validate data
B5SB4	Skill Based Elective- Internet	National	Defline basic concepts of NET FrameWork3.5,	• Define the Basic Concepts, Architecture and Components of .NET Framework.

	Programming Paper IV – Server Side Programming using Asp.Net		Architecture of .NET Frame Work and Components of .NET Framework .	• Discuss and use Web Forms with Standard Controls. • Apply validations to standard controls of web form. • Design and develop web applications using navigation controls. • Write basic SQL commands and develop web applications with DML operations using SQL commands.
B6CC13	J2EE Programming	National	To Understand J2EE as an architecture and platform for building and deploying web-based, n-tier enterprise applications.	• Explain J2EE Architecture and Standard Services used • Create Remote methods and apply it in J2EE applications using RMI • Develop Server side Java Applications using Servlet and JSP • Design programs with Data Base Connectivity using JDBC

				• Identify the type of Java Messaging Service
B6CC14	Data Communications and Networking	National	To provide detailed knowledge and understanding in the concepts of internet model of telecommunications and networking.	• Explain the structure of internet according to OSI model • Analyse the capacity, efficiency and the usage of different transmission medium • Outline the different switching techniques used for data transmission • Explain the various error and flow control algorithms used for effective communication • Outline the various addressing used for communication between source and destination through internet • Compare the format of data transmission using TCP and UDP protocols

				• Explain the standard algorithms used for data security
B6CC15	Lab-VI (J2EE Programming)	National	e program for network chatting	• Write program for network chatting • Write programs to access Data Base using JDBC • Create remote methods in Remote Server and write Client program to access it • Develop Server side Java Applications using Servlet • Develop Server side Java Applications using JSP
B6CC16	Project – II (Outside)	National	Analyze, Plan and Design a software system	• Analyze. Plan and Design a software system • Apply Project Management, Requirement analysis and other

				Software engineering concepts • Exhibit the skill of documenting . • Simulate and test the project with real-time data. • Acquire presentation skills
B6ME4	Major Elective – II Computer Graphics	National	Acquire, articulate, and apply specialized terminology and knowledge relevant to graphic design including relationships to other disciplines and to contemporary global issues.	• Identify the basic concepts used in computer graphics. • Analyze different output primitives. • Explain the techniques of transformations and three dimensional graphics with display methods. • Discuss the importance of viewing and clipping. • Explain the fundamentals of animation and virtual reality
B6ME5	Software	National	To introduce the	• Explain various testing processes and

	Testing		software development life cycle to develop error-free quality software.	continuous quality improvement • Describe White box testing and Black box testing • Discuss integration testing and its types • Explain Performance and Regression testing • Discuss Internationalization Testing and Ad-hoc testing procedures
B6ME6	Cloud Computing	National	Define cloud computing and related concepts	• Define cloud computing and related concepts • Explain the key dimensions of the challenges of Cloud Computing • Discuss the assessment of the economics , financial, and technological implications for selecting cloud computing for an organization

				• Describe the benefits of cloud computing and to understand different layers of the cloud technologies, practical solutions • Explain the challenges of cloud computing and determine the suitability of in-house v/s hosted solutions
B6ME7	Major Elective – III Introduction to Artificial Intelligence	National	To orient towards the latest concepts of the emerging technology.	• Differentiate AI method of problem solving from normal method • Identify heuristics for a given problem • Explain the various search techniques • Explain predicate logic • Describe the fundamentals of Game Playing, NLP, NN and Expert Systems
B6ME8	Principles of Mobile	National	To enable the students to understand the OS, protocols and security	• Explain Pervasive Computing • Identify different operating systems

	Computing		used in mobile technology and enable them to know in detail about mobile computing.	• Discuss the importance of Security • Explain Internet Protocols • Describe different Gateways
B6ME9	Big Data Fundamentals	National	Explain the fundamental concepts of Big data	• Explain the fundamental concepts of Big data • Describe Big data Adoption and Planning • Explain Big data Storage Concept • Utilize Big data and Processing Concepts • Demonstrate Big Data Analysis Techniques.
B6SB5	Skill Based Elective-Internet	National	To understand and write PHP code, and use it to build dynamic	• Explain fundamental concepts of PHP • Identify and use array and array related

	Programming Paper V - Server Side Programming Using Php		web pages To further their knowledge of web application development with PHP	functions • Design and Develop Form with PHP Code. • Develop File operations. • Demonstrate Data Manipulation commands in MYSQL
B6SB6	Skill Based Elective-Internet Programming Paper - VI -Web Services Development Using XML	National	To Know about Web Services that convert application into a Web-application To understand the differences between HTML and XML	• Define the Web Services that convert application into a Web-application • Analyze the differences between HTML and XML • Apply XML mark-up language for transferring data • Create and validate XML documents • Discuss Simple Object Access Protocol in detail

2018 -2019

COURSE CODE	COURSE TITLE	NATURE OF THE COURSE (LOCAL/ NATIONAL/ REGIONAL/ GLOBAL)	COURSE DESCRIPTION	COURSE OBJECTIVES
B1CC1	Programming in C	National	To identify the basic concepts needed for program development, to apply the basic concepts and develop program to find solutions for simple problems	• To introduce and form a firm foundation in programming • To stress the importance of clarity , simplicity and the efficiency in writing programs

B1CC2	Lab – I (Programming in C)	National	To develop algorithms to find solutions for simple problems, to analyze the source code and rectify errors if any and bring out necessary solution	• Improve the skill of writing programs in C • Utilize various features in C to various situations
B1NME1	Animation Techniques (NME)	National	To create a movie with simple animation using built-in animation techniques, to design a movie with many scenes using motion tween technique and multilayer concept and enhanced animation using symbols.	• To offer a job oriented course and teach them to design animated applications
B2CC3	Programming in C++	National	To compare Procedure-oriented programming	• To introduce Object Oriented Programming concepts using C++ and

			and the evolution of Object oriented programming, to identify basic concepts of OOP, benefits and its applications. To design object oriented programs that can focus on reusability – Inheritance.	improve their OOP Skill.
B2CC4	Lab – II (Programming in C++)	National	To write programs using Object oriented programming paradigm – Encapsulation (Classes and objects), Polymorphism and Inheritance. To apply various features like constructors and	• To enable the learner to write, debug and test the programs written using OOP

			destructors, overloading- function and operators, To design to write programs using Object oriented programming paradigm that enables runtime polymorphism using pointers and virtual functions.	
B2AC2	Computer System Architecture (Allied -II)	National	To outline the structure of a basic computer system and explain the role of functional units, to explain the instruction cycle according to the type and addressing mode of	• To understand the organization and design of basic digital computer. • To understand the procedure for implementing the arithmetic algorithm in digital hardware. • To discuss the techniques that computers use to communicate with

			the instruction, to design the control logic circuit for various digital circuits such as registers, memory and adder - logic circuit of a basic computer system	I/O devices and Memory.
B2NME2	Animation Techniques (NME)	National	To create a movie with simple animation using built-in animation techniques, to design a movie with many scenes using motion tween technique and multilayer concept and enhanced animation using symbols.	• To offer a job oriented course and teach them to design animated applications
B3CC5	Data Structures	National	To identify data	• To inculcate the skill of developing an

	and Algorithms		structures needed to solve specific problems, to analyze the data structures for effective use in problem solving, to design and develop efficient algorithms in terms of Space and Time	algorithm with the apt Data Structures.
B3CC6	Lab –III (Data Structures in C++)	National	To write efficient programs consuming less memory, to compile and Execute programs using required data structures	• Programs to be written using OOP concepts to implement data structures.
B3SB1	Skill Based Elective-Internet	National	To discuss the way in which internet is used, classify the different	• To facilitate the students to explore the basics of internet. • To introduce how data can be shared

	Programming Paper I Introduction to Internet		types of connections, to describe the working of web browsers and demonstrate searching the web using effective web browsing tips, to design a simple web site and discuss the method for web hosting.	and accessed thru' internet
B4CC7	RDBMS With Oracle	National	To explain basic architecture, major components behind relational databases, various set operations and their implementation in RDBMS and key advantages of using RDBMS in real world	• To impart complete understanding of Relational database concepts and its usage in the real world applications • To encapsulate the implementation of database system concepts in SQL

			computing. To assess how SQL evolves as the communication language to access the data. To discuss functional dependencies and various forms of normalization in maintaining the integrity of data.	
B4CC8	Lab - IV (Visual Programming)	National	To write simple programs in VB, to compile, Debug and Execute programs in VB, to design and simulate simple game applications	• Programs to be written using IDE for window applications

B4SB2	Skill Based Elective- Internet Programming Paper II Html	National	To create simple web page using physical tags, to present the information in standard form in a web page using structure tags supported by the browsers, to design the layout for a web page using browser support tags	• To teach the basic concept of designing a Web page.
B5CC9	Programming in Java	National	To explain the fundamental concepts of object-oriented programming and acquire programming skills using the basic language constructs and the core APIs	• To understand the fundamental concepts of object-oriented programming and be familiar with the basic language constructs and the core APIs provided by Java

			provided by Java. To design, write, compile, execute, test, and debug object-oriented programs in Java.	
B5CC10	Operating System Concepts	National	To explain what operating systems are, what they do and how they are designed and constructed. To describe the services an operating system provides to users, processes and other systems.	• To develop critical thinking, inquiring, technology skills to describe and to paraphrase what operating systems are, what they do and how they are designed & construct.
B5CC11	Lab-V (Programming in Java)	National	To design, write, compile, execute, test, and debug object-	• To develop error-free, well-documented , structured Java programs and to compile, execute,

			oriented programs in Java. To write packages, access specifies and interfaces in a program. To write programs to handle exception and implement Multithreading, To develop simple graphical user interfaces for Java Applications and Applets using GUI.	test, and debug the same
B5CC12	Project - I	National	To analyze. Plan and Design a software system. To apply Project Management, Requirement analysis and other Software engineering concepts	• The project work motivates them and also gives insights about Software Development.

B5ME1	Major Elective – I Software Engineering	National	To explain the basic concepts and techniques. To plan for building efficient and reliable software. To analyze the challenges of small to large scale software development.	• Creating students with knowledge to solve real-world problems by providing thorough understanding of all concepts and techniques.
B5ME2	Latest Computing Technologies	National	To explain the key technologies, architecture, strengths, limitations and applications of cloud computing, To describe soft computing techniques and their roles in building intelligent machines	• To introduce the basics of various computing technologies like Mobile Computing, Soft Computing, Grid computing, Cloud Computing and Green Computing

P5MEB1	Programming With C (Elective offered to Physics)	National	To explain the Fundamentals of C programming language, To describe the concept of Array and String Functions.	• To introduce and form a firm foundation in programming
B5SB3	Skill Based Elective- Internet Programming Paper III – Client Side Programming Using Java Script& Css	National	To design a website with boosted styles using style sheets, To design uniform layout for all pages of a website through tags and style sheets	• To understand the JavaScript language • To alter, show, hide and move objects on a web page
B5SB4	Skill Based Elective- Internet	National	To define the Basic Concepts, Architecture and Components of	• Define basic concepts of NET FrameWork3.5, Architecture of .NET Frame Work and Components of

	Programming Paperiv – Server Side Programming Using Asp.Net		.NET Framework. To discuss and use Web Forms with Standard Controls. To apply validations to standard controls of web form. To design and develop web applications using navigation controls.	.NET Framework .
B6CC13	J2EE Programming	National	To explain J2EE Architecture and Standard Services used, To create Remote methods and apply it in J2EE applications using RMI, To develop Server side Java Applications using Servlet and JSP, To design programs with	• To Understand J2EE as an architecture and platform for building and deploying web-based, n-tier enterprise applications.

			Data Base Connectivity using JDBC, To identify the type of Java Messaging Service	
B6CC14	Data Communications And Networking	National	To explain the structure of internet according to OSI model, To analyze the capacity, efficiency and the usage of different transmission medium, To outline the different switching techniques used for data transmission, To explain the various error and flow control algorithms used for effective communication, various	• To provide detailed knowledge and understanding in the concepts of internet model of telecommunications and networking.

			addressing used for communication between source and destination through internet, to compare the format of data transmission using TCP and UDP protocols, to explain the standard algorithms used for data security	
B6CC15	Lab-VI (J2EE Programming)	National	To write program for network chatting, to access Data Base using JDBC, to create remote methods in Remote Server and write Client program to access it	• To introduce the students the principles, foundations, and applications of different computing technologies, and its significance in reshaping information technology processes.
B6CC16	Project – II	National	To analyze, Plan and	• Students are offered career training as part of the curriculum through the

			Design a software system, to apply Project Management, Requirement analysis and other Software engineering concepts, to exhibit the skill of documenting .	Project. • Project work motivates them and also gives insights about Software Development.
B6ME3	Major Elective – II Computer Graphics	National	Acquire, articulate, and apply specialized terminology and knowledge relevant to graphic design including relationships to other disciplines and to contemporary global issues	• To learn the fundamentals of Computer Graphics concepts and algorithms • To provide wider scope on transformations and Interactive GUI
B6ME4	Software	National	To introduce the	• To introduce the software

	Testing		software development life cycle to develop error-free quality software.	development life cycle to develop error-free quality software.
B6ME5	Major Elective – III Introduction to Artificial Intelligence	National	Define cloud computing and related concepts	• To orient towards the latest concepts of the emerging technology.
B6ME6	Principles of Mobile Computing	National	To orient towards the latest concepts of the emerging technology.	• To enable the students to understand the OS, protocols and security used in mobile technology and enable them to know in detail about mobile computing.
B6SB5	Skill Based Elective- Internet Programming	National	To understand and write PHP code, and use it to build dynamic web pages	• To understand and write PHP code, and use it to build dynamic web pages • To further their knowledge of web

	Paper V - Server Side Programming Using PHP		To further their knowledge of web application development with PHP	application development with PHP
B6SB6	Skill Based Elective- Internet Programming Paper VI -Web Services Development	National	To Know about Web Services that convert application into a Web-application To understand the differences between HTML and XML	• To Know about Web Services that convert application into a Web-application • To understand the differences between HTML and XML

2017 -2018

COURSE CODE	COURSE TITLE	NATURE OF THE COURSE (LOCAL/ NATIONAL/ REGIONAL/GLOBAL)	COURSE DESCRIPTION	COURSE OBJECTIVE
B1CC1	Programming in C	National	To identify the basic concepts needed for program development, to apply the basic concepts and develop program to find solutions for simple problems	• To introduce and form a firm foundation in programming • To stress the importance of clarity , simplicity and the efficiency in writing programs
B1CC2	Lab – I (Programming in C)	National	To develop algorithms to find solutions for simple problems, to	• Improve the skill of writing programs in C • Utilize various features in C to

			analyze the source code and rectify errors if any and bring out necessary solution	various situations
B1NME1	Animation Techniques (NME)	National	To create a movie with simple animation using built-in animation techniques, to design a movie with many scenes using motion tween technique and multilayer concept and enhanced animation using symbols.	• To offer a job oriented course and teach them to design animated applications
B2CC3	Programming in C++	National	To compare Procedure-oriented programming and the evolution of Object oriented	• To introduce Object Oriented Programming concepts using C++ and improve their OOP Skill.

			programming, to identify basic concepts of OOP, benefits and its applications. To design object oriented programs that can focus on reusability – Inheritance.	
B2CC4	Lab – II (Programming in C++)	National	To write programs using Object oriented programming paradigm – Encapsulation (Classes and objects), Polymorphism and Inheritance. To apply various features like constructors and destructors, overloading- function	• To enable the learner to write, debug and test the programs written using OOP

			and operators, To design to write programs using Object oriented programming paradigm that enables runtime polymorphism using pointers and virtual functions.	
B2AC2	Computer System Architecture (Allied -II)	National	To outline the structure of a basic computer system and explain the role of functional units, to explain the instruction cycle according to the type and addressing mode of the instruction, to design the control logic	• To understand the organization and design of basic digital computer. • To understand the procedure for implementing the arithmetic algorithm in digital hardware. • To discuss the techniques that computers use to communicate with I/O devices and Memory.

			circuit for various digital circuits such as registers, memory and adder - logic circuit of a basic computer system	
B2NME2	Animation Techniques (NME)	National	To create a movie with simple animation using built-in animation techniques, to design a movie with many scenes using motion tween technique and multilayer concept and enhanced animation using symbols.	• To offer a job oriented course and teach them to design animated applications
B3CC5	Data Structures and Algorithms	National	To identify data structures needed to	• To inculcate the skill of developing an algorithm with the apt Data

			solve specific problems, to analyse the data structures for effective use in problem solving, to design and develop efficient algorithms in terms of Space and Time	Structures.
B3CC6	Lab –III (Data Structures in C++)	National	To write efficient programs consuming less memory, to compile and Execute programs using required data structures	• Programs to be written using OOP concepts to implement data structures.
B3SB1	Skill Based Elective- Internet Programming	National	To discuss the way in which internet is used, classify the different	• To facilitate the students to explore the basics of internet. • To introduce how data can be

	Paper I Introduction to Internet		types of connections, to describe the working of web browsers and demonstrate searching the web using effective web browsing tips, to design a simple web site and discuss the method for web hosting.	shared and accessed thru' internet
B4CC7	RDBMS With Oracle	National	To explain basic architecture, major components behind relational databases, various set operations and their implementation in RDBMS and key advantages of using	• To impart complete understanding of Relational database concepts and its usage in the real world applications • To encapsulate the implementation of database system concepts in SQL

			RDBMS in real world computing. To assess how SQL evolves as the communication language to access the data. To discuss functional dependencies and various forms of normalization in maintaining the integrity of data.	
B4CC8	Lab - IV (Visual Programming)	National	To write simple programs in VB, to compile, Debug and Execute programs in VB, to design and simulate simple game	• Programs to be written using IDE for window applications

			applications	
B4SB2	Skill Based Elective- Internet Programming Paper II Html	National	To create simple web page using physical tags, to present the information in standard form in a web page using structure tags supported by the browsers, to design the layout for a web page using browser support tags	• To teach the basic concept of designing a Web page.
B5CC9	Programming in Java	National	To explain the fundamental concepts of object-oriented programming and acquire programming skills using the basic	• To understand the fundamental concepts of object-oriented programming and be familiar with the basic language constructs and the core APIs provided by Java

			language constructs and the core APIs provided by Java. To design, write, compile, execute, test, and debug object-oriented programs in Java.	
B5CC10	System Software and Operating System Concepts	National	To explain what operating systems are, what they do and how they are designed and constructed. To describe the services an operating system provides to users, processes and other systems.	• To present a general model of a compiler that may be used as a basis for designing and studying compilers. • To explore the structure and effectiveness of an operating system in terms of resource management.
B5CC11	Lab-V	National	To design, write,	• To develop error-free, well-

	(Programming in Java)		compile, execute, test, and debug object-oriented programs in Java. To write packages, access specifies and interfaces in a program. To write programs to handle exception and implement Multithreading, To develop simple graphical user interfaces for Java Applications and Applets using GUI.	documented , structured Java programs and to compile, execute, test, and debug the same
B5CC12	Project - I	National	To analyze, plan and design a software system. To apply	• The project work motivates them and also gives insights about Software Development.

			Project Management, Requirement analysis and other Software engineering concepts	
B5ME1	Major Elective – I Software Engineering	National	To explain the basic concepts and techniques. To plan for building efficient and reliable software. To analyze the challenges of small to large scale software development.	• Creating students with knowledge to solve real-world problems by providing thorough understanding of all concepts and techniques.
B5ME2	Computer Graphics	National	Acquire, articulate, and apply specialized terminology and knowledge relevant to graphic design including relationships	• To learn the fundamentals of Computer Graphics concepts and algorithms • To provide wider scope on transformations and Interactive GUI

			to other disciplines and to contemporary global issues.	
P5MEB1	Programming With C (Elective offered to Physics)	National	To explain the Fundamentals of C programming language, To describe the concept of Array and String Functions.	• To introduce and form a firm foundation in programming
B5SB3	Skill Based Elective- Internet Programming Paper III – Client Side Programming Using Java Script& Css	National	To design a website with boosted styles using style sheets, To design uniform layout for all pages of a website through tags and style sheets	• To understand the JavaScript language • To alter, show, hide and move objects on a web page

B5SB4	Skill Based Elective- Internet Programming Paper IV – Server Side Programming Using Asp.Net	National	To define the Basic Concepts, Architecture and Components of .NET Framework. To discuss and use Web Forms with Standard Controls. To apply validations to standard controls of web form. To design and develop web applications using navigation controls.	• Define basic concepts of NET FrameWork3.5, Architecture of .NET Frame Work and Components of .NET Framework .
B6CC13	J2EE Programming	National	To explain J2EE Architecture and Standard Services used, To create Remote methods and apply it in J2EE applications	• To Understand J2EE as an architecture and platform for building and deploying web-based, n-tier enterprise applications.

			using RMI, To develop Server side Java Applications using Servlet and JSP, To design programs with Data Base Connectivity using JDBC, To identify the type of Java Messaging Service	
B6CC14	Data Communications And Networking	National	To explain the structure of internet according to OSI model, To analyse the capacity, efficiency and the usage of different transmission medium, To outline the different switching techniques used for data	• To provide detailed knowledge and understanding in the concepts of internet model of telecommunications and networking.

			transmission, To explain the various error and flow control algorithms used for effective communication.	
B6CC15	Lab-VI (J2EE Programming)	National	To write program for network chatting, to access Data Base using JDBC, to create remote methods in Remote Server and write Client program to access it.	• Write program for network chatting
B6CC16	Project – II	National	To analyze, Plan and Design a software system, to apply Project Management, Requirement analysis	• Students are offered career training as part of the curriculum through the Project. • Project work motivates them and also gives insights about

			and other Software engineering concepts, to exhibit the skill of documenting	Software Development.
B6ME3	Major Elective – II Computer Graphics	National	To explain the key technologies, architecture, strengths, limitations and applications of cloud computing, To describe soft computing techniques and their roles in building intelligent machines	• To introduce the basics of various computing technologies like Mobile Computing, Soft Computing, Grid computing, Cloud Computing and Green Computing • To introduce the students the principles, foundations, and applications of different computing technologies, and its significance in reshaping information technology processes.
B6ME4	Software Testing	National	To introduce the software development	• To introduce the software development life cycle to develop

			life cycle to develop error-free quality software.	error-free quality software.
B6ME5	Major Elective – III Introduction to Artificial Intelligence	National	Define cloud computing and related concepts	• To orient towards the latest concepts of the emerging technology.
B6ME6	Principles of Mobile Computing	National	To orient towards the latest concepts of the emerging technology.	• To enable the students to understand the OS, protocols and security used in mobile technology and enable them to know in detail about mobile computing.
B6SB5	Skill Based Elective- Internet Programming Paper V - Server	National	To Know about Web Services that convert application into a Web-application	• To Know about Web Services that convert application into a Web-application • To understand the differences

	Side Programming Using PHP		To understand the differences between HTML and XML	between HTML and XML
B6SB6	Skill Based Elective- Internet Programming Paper VI -Web Services Development	National	To understand and write PHP code, and use it to build dynamic web pages To further their knowledge of web application development with PHP	• To understand and write PHP code, and use it to build dynamic web pages • To further their knowledge of web application development with PHP

2016 -2017

COURSE CODE	COURSE TITLE	NATURE OF THE COURSE (LOCAL/ NATIONAL/ REGIONAL/GLOBAL)	COURSE DESCRIPTION	COURSE OBJECTIVE
B1CC1	Programming in C	National	To identify the basic concepts needed for program development, to apply the basic concepts and develop program to find solutions for simple problems	• To introduce and form a firm foundation in programming • To stress the importance of clarity , simplicity and the efficiency in writing programs
B1CC2	Lab – I (Programming in C)	National	To develop algorithms to find solutions for simple problems, to analyze the source code and rectify	• Improve the skill of writing programs in C • Utilize various features in C to various situations

			errors if any and bring out necessary solution	
B1NME1	Animation Techniques (NME)	National	To create a movie with simple animation using built-in animation techniques, to design a movie with many scenes using motion tween technique and multilayer concept and enhanced animation using symbols.	• To offer a job oriented course and teach them to design animated applications
B2CC3	Programming in C++	National	To compare Procedure-oriented programming and the evolution of Object oriented programming, to identify basic concepts of OOP, benefits and its applications. To design	• To introduce Object Oriented Programming concepts using C++ and improve their OOP Skill.

			object oriented programs that can focus on reusability – Inheritance.	
B2CC4	Lab – II (Programming in C++)	National	To write programs using Object oriented programming paradigm – Encapsulation (Classes and objects), Polymorphism and Inheritance. To apply various features like constructors and destructors, overloading-function and operators, To design to write programs using Object oriented programming paradigm that enables runtime polymorphism	• To enable the learner to write, debug and test the programs written using OOP

			using pointers and virtual functions.	
B2AC2	Computer System Architecture (Allied -II)	National	To outline the structure of a basic computer system and explain the role of functional units, to explain the instruction cycle according to the type and addressing mode of the instruction, to design the control logic circuit for various digital circuits such as registers, memory and adder - logic circuit of a basic computer system	• To understand the organization and design of basic digital computer. • To understand the procedure for implementing the arithmetic algorithm in digital hardware. • To discuss the techniques that computers use to communicate with I/O devices and Memory.
B2NME2	Animation Techniques (NME)	National	To create a movie with simple animation using built-in animation	• To offer a job oriented course and teach them to design animated applications

			techniques, to design a movie with many scenes using motion tween technique and multilayer concept and enhanced animation using symbols.	
B3CC5	Data Structures and Algorithms	National	To identify data structures needed to solve specific problems, to analyse the data structures for effective use in problem solving, to design and develop efficient algorithms in terms of Space and Time	• To inculcate the skill of developing an algorithm with the apt Data Structures.
B3CC6	Lab –III (Data Structures in C++)	National	To write efficient programs consuming less memory, to compile and Execute	• Programs to be written using OOP concepts to implement data structures.

			programs using required data structures	
B3SB1	Skill Based Elective- Internet Programming Paper I Introduction to Internet	National	To discuss the way in which internet is used, classify the different types of connections, to describe the working of web browsers and demonstrate searching the web using effective web browsing tips, to design a simple web site and discuss the method for web hosting.	• To facilitate the students to explore the basics of internet. • To introduce how data can be shared and accessed thru' internet
B4CC7	RDBMS With Oracle	National	To explain basic architecture, major components behind relational databases, various set Operations and	• To impart complete understanding of Relational database concepts and its usage in the real world applications

			their implementation in RDBMS and key advantages of using RDBMS in real world computing. To assess how SQL evolves as the communication language to access the data. To discuss functional dependencies and various forms of normalization in maintaining the integrity of data.	• To encapsulate the implementation of database system concepts in SQL
B4CC8	Lab - IV (Visual Programming)	National	To write simple programs in VB, to compile, Debug and Execute programs in VB, to design and simulate simple game applications	• Programs to be written using IDE for window applications

B4SB2	Skill Based Elective- Internet Programming Paper II Html	National	To create simple web page using physical tags, to present the information in standard form in a web page using structure tags supported by the browsers, to design the layout for a web page using browser support tags	• To teach the basic concept of designing a Web page.
B5CC9	Programming in Java	National	To explain the fondamental concepts of object-oriented programming and acquire programming skills using the basic language constructs and the core APIs provided by Java. To design, write, compile,	• To understand the fundamental concepts of object-oriented programming and be familiar with the basic language constructs and the core APIs provided by Java.

			execute, test, and debug object-oriented programs in Java.	
B5CC10	System Software and Operating System Concepts	National	To explain what operating Systems are, what they do and how they are designed and constructed. To describe the services an operating system provides to users, processes and other systems.	• To present a general model of a compiler that may be used as a basis for designing and studying compilers. • To explore the structure and effectiveness of an operating system in terms of resource management.
B5CC11	Lab-V (Programming in Java)	National	To design, write, compile, execute, test, and debug object-oriented programs in Java. To write packages, access specifies and interfaces in a program. To write programs to handle	• To develop error-free, well-documented , structured Java programs and to compile, execute, test, and debug the same

			exception and implement Multithreading, To develop simple graphical user interfaces for Java Applications and Applets using GUI.	
B5CC12	Project - I	National	To analyze, plan and design a software system. To apply Project Management, Requirement analysis and other Software engineering concepts	• The project work motivates them and also gives insights about Software Development.
B5ME1	Major Elective – I Software Engineering	National	To explain the basic concepts and techniques. To plan for building efficient and reliable software. To analyze the	• Creating students with knowledge to solve real-world problems by providing thorough understanding of all concepts and techniques.

			challenges of Small to large scale software development.	
B5ME2	Computer Graphics	National	Acquire, articulate, and apply specialized terminology and knowledge relevant to graphic design including relationships to other disciplines and to contemporary global issues.	• To learn the fundamentals of Computer Graphics concepts and algorithms • To provide wider scope on transformations and Interactive GUI
P5MEB1	Programming With C (Elective offered to Physics)	National	To explain the Fundamentals of C programming language, To describe the concept of Array and String Functions.	• To introduce and form a firm foundation in programming

B5SB3	Skill Based Elective- Internet Programming Paper III – Client Side Programming Using Java Script& CSS	National	To design a website with boosted styles using style sheets, To design uniform layout for all pages of a website through tags and style sheets	• To understand the JavaScript language • To alter, show, hide and move objects on a web page
B5SB4	Skill Based Elective- Internet Programming Paper IV – Server Side Programming Using Asp.Net	National	To define the Basic Concepts, Architecture and Components of .NET Framework. To discuss and use Web Forms with Standard Controls. To apply validations to standard controls of web form. To design and develop web applications using navigation controls.	• Defline basic concepts of NET FrameWork3.5, Architecture of .NET Frame Work and Components of .NET Framework .

B6CC13	J2EE Programming	National	To explain J2EE Architecture and Standard Services used, To create Remote methods and apply it in J2EE applications using RMI, To develop Server side Java Applications using Servlet and JSP, To design programs with Data Base Connectivity using JDBC, To identify the type of Java Messaging Service	• To Understand J2EE as an architecture and platform for building and deploying web-based, n-tier enterprise applications • To Acquire knowledge on how various J2EE technologies are used together to build enterprise applications • To Understand J2EE as an architecture and platform for building and deploying web-based, n-tier enterprise applications.
B6CC14	Data Communications And Networking	National	To explain the structure of internet according to OSI model, To analyse the capacity, efficiency and the usage of different	• To provide detailed knowledge and understanding in the concepts of internet model of telecommunications and

			transmission medium, To outline the different switching techniques used for data transmission, To explain the various error and flow control algorithms used for effective communication.	networking.
B6CC15	Lab-VI (J2EE Programming)	National	To write program for network chatting, to access Data Base using JDBC, to create remote methods in Remote Server and write Client program to access it	• To Understand the concept of Servlet and JSP as dynamic content generation technologies (Web-Server & support Technologies) • To Understand RMI as Distributed-Objects Technology • To Understand the use of Java Messaging Service
B6CC16	Project – II	National	To analyze, Plan and Design a software system,	• Students are offered career

			to apply Project Management, Requirement analysis and other Software engineering concepts, to exhibit the skill of documenting .	training as part of the curriculum through the Project. • Project work motivates them and also gives insights about Software Development.
B6ME3	Major Elective – II Computer Graphics	National	To explain the key technologies, architecture, strengths, limitations and applications of cloud computing, To describe soft computing techniques and their roles in building intelligent machines	• To introduce the basics of various computing technologies like Mobile Computing, Soft Computing, Grid computing, Cloud Computing and Green Computing • To introduce the students the principles, foundations, and applications of different computing technologies, and its significance in reshaping information technology processes.

B6ME4	Software Testing	National	To introduce the software development life cycle to develop error-free quality software.	• To introduce the software development life cycle to develop error-free quality software.
B6ME5	Major Elective – III Introduction to Artificial Intelligence	National	To orient towards the latest concepts of the emerging technology.	• To orient towards the latest concepts of the emerging technology.
B6ME6	Principles of Mobile Computing	National	Define mobile computing and related concepts	• To enable the students to understand the OS, protocols and security used in mobile technology and enable them to know in detail about mobile computing.
B6SB5	Skill Based Elective- Internet Programming	National	To Know about Web Services that convert application into a Web-	• To Know about Web Services that convert application into a Web-application

	Paper V - Server Side Programming Using PHP		application To understand the differences between HTML and XML	• To understand the differences between HTML and XML
B6SB6	Skill Based Elective- Internet Programming Paper VI -Web Services Development	National	To understand and write PHP code, and use it to build dynamic web pages To further their knowledge of web application development with PHP	• To understand and write PHP code, and use it to build dynamic web pages • To further their knowledge of web application development with PHP

2015 -2016

COURSE CODE	COURSE TITLE	NATURE OF THE COURSE (LOCAL/ NATIONAL/ REGIONAL/GLOBAL)	COURSE DESCRIPTION	COURSE OBJECTIVES
B1CC1	Programming in C	National	To identify the basic concepts needed for program development, to apply the basic concepts and develop program to find solutions for simple problems	• To introduce and form a firm foundation in programming • To stress the importance of clarity , simplicity and the efficiency in writing programs
B1CC2	Lab – I (Programming in C)	National	To develop algorithms to find solutions for simple problems, to analyze the source code and rectify errors if any and bring out	• Improve the skill of writing programs in C • Utilize various features in C to various situations

			necessary solution	
B1NME1	Animation Techniques (NME)	National	To create a movie with simple animation using built-in animation techniques, to design a movie with many scenes using motion tween technique and multilayer concept and enhanced animation using symbols.	• To offer a job oriented course and teach them to design animated applications
B2CC3	Programming in C++	National	To understand concepts like arrays, pointers and files, their benefits and applications.	• To provide contemporary approach to programming • To learn higher concepts and to strengthen the programming skill • To stress the importance of clarity, legibility, modularity and efficiency of program

				design.
B2CC4	Lab – II (Programming in C++)	National	To write programs using arrays, functions, structures, pointers and files.	• To introduce and form a firm foundation in programming by practicing programs (To write, test and programs)
B2AC2	Computer System Architecture (Allied -II)	National	To outline the structure of a basic computer system and explain the role of functional units, to explain the instruction cycle according to the type and addressing mode of the instruction, to design the control logic circuit for various digital circuits such as registers, memory and adder - logic circuit of a basic computer system	• To understand the organization and design of basic digital computer. • To understand the procedure for implementing the arithmetic algorithm in digital hardware. • To discuss the techniques that computers use to communicate with I/O devices and Memory.

B2NME2	Animation Techniques (NME)	National	To create a movie with simple animation using built-in animation techniques, to design a movie with many scenes using motion tween technique and multilayer concept and enhanced animation using symbols.	• To offer a job oriented course and teach them to design animated applications
B3CC5	Data Structures and Algorithms	National	To identify data structures needed to solve specific problems, to analyse the data structures for effective use in problem solving, to design and develop efficient algorithms in terms of Space and Time	• To inculcate the skill of developing an algorithm with the apt Data Structures.
B3CC6	Lab –III (Data	National	To write efficient programs	• Programs to be written using

	Structures in C++)		consuming less memory, to compile and Execute programs using required data structures	OOP concepts to implement data structures.
B3SB1	Skill Based Elective- Internet Programming Paper I Introduction to Internet	National	To discuss the way in which internet is used, classify the different types of connections, to describe the working of web browsers and demonstrate searching the web using effective web browsing tips, to design a simple web site and discuss the method for web hosting.	• To facilitate the students to explore the basics of internet. • To introduce how data can be shared and accessed thru' internet
B4CC7	RDBMS With Oracle	National	To explain basic architecture, major components behind relational databases,	• To impart complete understanding of Relational database concepts and its usage in the real world

			various set operations and their implementation in RDBMS and key advantages of using RDBMS in real world computing. To assess how SQL evolves as the communication language to access the data. To discuss functional dependencies and various forms of normalization in maintaining the integrity of data.	applications • To encapsulate the implementation of database system concepts in SQL
B4CC8	Lab - IV (Visual Programming)	National	To write simple programs in VB, to compile, Debug and Execute programs in VB, to design and simulate simple game applications	• Programs to be written using IDE for window applications

B4SB2	Skill Based Elective- Internet Programming Paper II Html	National	To create simple web page using physical tags, to present the information in standard form in a web page using structure tags supported by the browsers, to design the layout for a web page using browser support tags	• To teach the basic concept of designing a Web page.
B5CC9	Programming in Java	National	To explain the fundamental concepts of object-oriented programming and acquire programming skills using the basic language constructs and the core APIs provided by Java. To design, write, compile, execute, test, and debug object-oriented programs in	• To understand the fundamental concepts of object-oriented programming and be familiar with the basic language constructs and the core APIs provided by Java.

			Java.	
B5CC10	System Software and Operating System Concepts	National	To explain what operating systems are, what they do and how they are designed and constructed. To describe the services an operating system provides to users, processes and other systems.	• To present a general model of a compiler that may be used as a basis for designing and studying compilers. • To explore the structure and effectiveness of an operating system in terms of resource management.
B5CC11	Lab-V (Programming in Java)	National	To design, write, compile, execute, test, and debug object-oriented programs in Java. To write packages, access specifies and interfaces in a program. To write programs to handle exception and implement Multithreading, To develop	• To develop error-free, well-documented , structured Java programs and to compile, execute, test, and debug the same

			simple graphical user interfaces for Java Applications and Applets using GUI.	
B5CC12	Project - I	National	To analyze, plan and design a software system. To apply Project Management, Requirement analysis and other Software engineering concepts	• The project work motivates them and also gives insights about Software Development.
B5ME1	Major Elective – I Software Engineering	National	To explain the basic concepts and techniques. To plan for building efficient and reliable software. To analyze the challenges of small to large scale software development.	• Creating students with knowledge to solve real-world problems by providing thorough understanding of all concepts and techniques.
B5ME2	Computer Graphics	National	Acquire, articulate, and	• To learn the fundamentals of

			apply specialized terminology and knowledge relevant to graphic design including relationships to other disciplines and to contemporary global issues.	Computer Graphics concepts and algorithms • To provide wider scope on transformations and Interactive GUI
P5MEB1	Programming With C (Elective offered to Physics)	National	To explain the Fundamentals of C programming language, To describe the concept of Array and String Functions.	• To introduce and form a firm foundation in programming
B5SB3	Skill Based Elective- Internet Programming Paper III – Client Side Programming Using Java Script& Css	National	To design a website with boosted styles using style sheets, To design uniform layout for all pages of a website through tags and style sheets	• To understand the JavaScript language • To alter, show, hide and move objects on a web page

B5SB4	Skill Based Elective- Internet Programming Paper IV – Server Side Programming Using Asp.Net	National	To define the Basic Concepts, Architecture and Components of .NET Framework. To discuss and use Web Forms with Standard Controls. To apply validations to standard controls of web form. To design and develop web applications using navigation controls.	• Define basic concepts of NET FrameWork3.5, Architecture of .NET Frame Work and Components of .NET Framework .
B6CC13	J2EE Programming	National	To explain J2EE Architecture and Standard Services used, To create Remote methods and apply it in J2EE applications using RMI, To develop Server side Java Applications using Servlet	• To Understand J2EE as an architecture and platform for building and deploying web-based, n-tier enterprise applications.

			and JSP, To design programs with Data Base Connectivity using JDBC, To identify the type of Java Messaging Service	
B6CC14	Data Communications And Networking	National	To explain the structure of internet according to OSI model, To analyse the capacity, efficiency and the usage of different transmission medium, To outline the different switching techniques used for data transmission, To explain the various error and flow control algorithms used for effective communication.	• To provide detailed knowledge and understanding in the concepts of internet model of telecommunications and networking.

B6CC15	Lab-VI (J2EE Programming)	National	To write program for network chatting, to access Data Base using JDBC, to create remote methods in Remote Server and write Client program to access it	• To Understand the concept of Servlet and JSP as dynamic content generation technologies (Web-Server & support Technologies) • To Understand RMI as Distributed-Objects Technology • To Understand the use of Java Messaging Service
B6CC16	Project – II	National	To analyze, Plan and Design a software system, to apply Project Management, Requirement analysis and other Software engineering concepts, to exhibit the skill of documenting .	• Students are offered career training as part of the curriculum through the Project. • Project work motivates them and also gives insights about Software Development.

B6ME3	Major Elective – II Computer Graphics	National	To explain the key technologies, architecture, strengths, limitations and applications of cloud computing, To describe soft computing techniques and their roles in building intelligent machines	• To introduce the basics of various computing technologies like Mobile Computing, Soft Computing, Grid computing, Cloud Computing and Green Computing • To introduce the students the principles, foundations, and applications of different computing technologies, and its significance in reshaping information technology processes.
B6ME4	Software Testing	National	To introduce the software development life cycle to develop error-free quality software.	• To introduce the software development life cycle to develop error-free quality software.

B6ME5	Major Elective – III Introduction to Artificial Intelligence	National	Define cloud computing and related concepts	• To orient towards the latest concepts of the emerging technology.
B6ME6	Principles of Mobile Computing	National	To orient towards the latest concepts of the emerging technology.	• To enable the students to understand the OS, protocols and security used in mobile technology and enable them to know in detail about mobile computing.
B6SB5	Skill Based Elective- Internet Programming Paper V - Server Side Programming Using PHP	National	To Know about Web Services that convert application into a Web-application To understand the differences between HTML and XML	• To Know about Web Services that convert application into a Web-application • To understand the differences between HTML and XML • To understand XML as a markup language for

				transferring data • To learn XML syntax and to create and validate XML documents
B6SB6	Skill Based Elective- Internet Programming Paper VI -Web Services Development	National	To understand and write PHP code, and use it to build dynamic web pages To further their knowledge of web application development with PHP	• To understand and write PHP code, and use it to build dynamic web pages • To further their knowledge of web application development with PHP