BCA - Programme Outcomes (PO)

PO No.	Upon completion of B.C.A Degree programme, the graduates will be able to:
PO-1	Apply knowledge of computing and mathematics appropriate to the discipline.
PO-2	Analyze a problem, and identify and define the computing requirements appropriate to its solution
PO-3	Work as teams to build software systems and apply the technologies in various fields of Computer Technology, including Web site development , management, databases, and software engineering techniques.
PO-4	Use current techniques, skills, and tools necessary for computing practices
PO-5	Build project work according to time scheduling, cost scheduling and also satisfy customer needs.

Programme Specific Outcomes (PSO)

PSO No.	Upon completion of B.C.A Degree programme, the graduates will be able to:	Mapping
PSO-1	Understand the basic concepts of digital fundamentals, OOP concepts, Databases, Microprocessor and assembly languages, web applications, techniques of computer networking and hardware related applications	PO1 & PO2
PSO-2	Apply standard software engineering and project management concepts in software project development using visual programming environment for computer technology oriented business applications	PO2 & PO-3&PO5
PSO-3	Demonstrate the principles and working of the hardware and software aspects of computer systems.	PO1
PSO-4	Apply general programming knowledge in the field of developing mobile applications	PO2, PO3 & PO4
PSO-5	Interpret technical skills to become entrepreneur	PO2 & PO4

<div align="center">Course Outcomes (CO)</div>

I SEMESTER		
DSC1		**PRINCIPLES OF PROGRAMMING IN C**

| Hrs / Week : 4 | Hrs / Sem : 60 | Hrs / Unit : 12 | Credits : |

CO No.	Upon completion of this course, students will be able to	PSO addressed	Blooms taxonomy classification
CO-1	Understand data representation and Data types of the C programming language	PSO1	Understand
CO-2	Develop and solve problems from description to implementation	PSO1	Create
CO-3	Understand the basic elements of imperative programming: variables, flow control, functions, and recursion	PSO1	Understand
CO-4	Develop and use basic data structures: arrays, strings, and linked lists	PSO1	Apply
CO-5	Make use of tools such as editors, compilers, and debuggers in the process of developing small to medium sized computer programs.	PSO1	Apply

I SEMESTER		
DSC 2		**FUNDAMENTALS OF COMPUTERS**

| Hrs / Week : 4 | Hrs / Sem : 60 | Hrs / Unit : 12 | Credits : |

CO No.	Upon completion of this course, students will be able to	PSO addressed	Blooms taxonomy classification
CO-1	Explain the history and development of modern computers	PSO3	Understand
CO-2	Understand the basics of different peripherals and interfaces.	PSO3	Understand
CO-3	Apply the basics of operating systems.	PSO3	Apply
CO-4	Explain basics of database Management system.	PSO1	Understand
CO-5	Determine the basics of network and multimedia.	PSO3	Evaluate

I SEMESTER			
AI-1	OFFICE AUTOMATION		
Hrs / Week : 4 Hrs / Sem : 60 Hrs / Unit : 12 Credits :			
CO No.	Upon completion of this course, students will be able to :	PSO addressed	Blooms taxonomy classification
CO-1	Apply formatting techniques in document·	PSO5	Apply
CO-2	Construct reference and table of content in documentation.	PSO5	Create
CO-3	Understand the mail merge concepts	PSO5	Understand
CO-4	Determine accounting operations and prepare chart in spreadsheets ·	PSO5	Evaluate
CO-5	Understand how to enrich presentations with transition and sound effect.	PSO5	Apply

I SEMESTER			
DSCP-1	PRINCIPLES OF PROGRAMMING IN C CORE PRACTICAL		
Hrs / Week :2 Hrs / Sem : 30 Credits :			
CO No.	Upon completion of this course, students will be able to	PSO addressed	Blooms taxonomy classification
CO-1	Make use of Branching and Looping Statement.	PSO-1	Apply
CO-2	Demonstrate 2-Dimensional arrays and functions in C	PSO-1	Understand
CO-3	Experiment with string and pointers	PSO-1	Apply
CO-4	Make use of typedef and structure pointers	PSO-1	Apply
CO-5	Test various files in C	PSO-1	Create

I SEMESTER			
AI-P-1	OFFICE AUTOMATION ALLIED PRACTICAL		
Hrs / Week : 2 Hrs / Sem : 30 Credit :			
CO No.	Upon completion of this course, students will be able to	PSO addressed	Blooms taxonomy classification
CO-1	Make use of spell check and thesaurus	PSO-1	Apply
CO-2	Demonstrate mail merge a letter to an address file	PSO-1	Understand
CO-3	Create presentation for a given topic	PSO-1	Create
CO-4	Experiment with macros	PSO-1	Apply
CO-5	Show graphs & charts for the given data	PSO-1	Understand

II SEMESTER			
DSC 3	**C++ PROGRAMMING**		
Hrs / Week : 4 Hrs / Sem : 60 Hrs / Unit : 12 Credits :			
CO No.	**Upon completion of this course, students will be able to**	**PSO addressed**	**Blooms taxonomy classification**
CO-1	Justify the philosophy of object-oriented design and the concepts of encapsulation, abstraction, inheritance, and polymorphism	PSO1	Evaluate
CO-2	Design, test, and debug simple programs in an object-oriented programming language	PSO1	Create
CO-3	Define how the class mechanism supports encapsulation and information hiding	PSO1	Remember
CO-4	Design and test the implementation of "is-a" relationships among objects using a class hierarchy and inheritance.	PSO1	Create
CO-5	Compare and contrast the notions of overloading and overriding methods in an object-oriented language.	PSO1	Understand
CO-6	Explain the relationship between the static structure of the class and the dynamic structure of the instances of the class.	PSO1	Understand
CO-7	Illustrate how iterators access the elements of a container.	PSO1	Understand

II SEMESTER			
DSC 4	**DIGITAL ELECTRONICS & PRINCIPLES**		
Hrs / Week : 4 Hrs / Sem : 60 Hrs / Unit : 12 Credits :			
CO No.	**Upon completion of this course, students will be able to**	**PSO addressed**	**Blooms taxonomy classification**
CO-1	Simplify Boolean algebraic expressions.	PSO3	Analyze
CO-2	Show Functions of various logic gates.	PSO3	Understand
CO-3	Design efficient combinational and sequential logic circuit implementations from functional description of digital systems.	PSO1	Create
CO-4	Minimize and optimize logic functions using K-maps	PSO1 & PSO3	Create
CO-5	Compare Functions of various Flipflops , Adders and counters	PSO3	Understand

II SEMESTER			
AI-2	**MULTIMEDIA TOOLS**		
Hrs / Week : 4	**Hrs / Sem : 60** **Hrs / Unit : 12**	**Credits :**	
CO No.	**Upon completion of this course, students will be able to**	**PSO addressed**	**Blooms taxonomy classification**
CO-1	Understand concepts of multimedia and create animation using macromedia flash	PSO1 & PSO5	Understand, Create
CO-2	Create their own animation using macromedia tools.	PSO5	Create
CO-3	Make use of macromedia tools for text editing	PSO5	Apply
CO-4	Create animation using Shape and motion Tweening	PSO5	Understand, Create
CO-5	Understand the concept of action script for developing a movie clip	PSO5	Understand, Create

II SEMESTER			
DSCP-2	**C++ PROGRAMMING** **CORE PRACTICAL**		
Hrs / Week :2	**Hrs / Sem : 30**	**Credits :**	
CO No.	**Upon completion of this course, students will be able to**	**PSO addressed**	**Blooms taxonomy classification**
CO-1	Make use of Class, Pointers and Inline Function	PSO-1	Apply
CO-2	Demonstrate Overloading, destructor and multiple inheritance	PSO-1	Understand
CO-3	Experiment with operator overloading	PSO-1	Apply
CO-4	Make use of virtual function	PSO-1	Apply
CO-5	Test various file concepts	PSO-1	Create

II SEMESTER			
AI-P-2	**MULTIMEDIA TOOL** **ALLIED PRACTICAL**		
Hrs / Week : 2	**Hrs / Sem : 30**	**Credit :**	
CO No.	**Upon completion of this course, students will be able to**	**PSO addressed**	**Blooms taxonomy classification**
CO-1	Construct moving object and change the color of an object	PSO-2 & PSO-3	Apply
CO-2	Discover new object using shape tweening	PSO-2	Apply
CO-3	Create a button for URL-Link	PSO1	Create
CO-4	Apply animation for an object using timeline control action	PSO-4	Apply
CO-5	Construct a movie Clip	PSO-4	Apply,Create

III SEMESTER			
DSC5	**PROGRAMMING IN JAVA**		
Hrs / Week : 4 Hrs / Sem : 60 Hrs / Unit : 12 Credits :			
CO No.	**Upon completion of this course, students will be able to**	**PSO addressed**	**Blooms taxonomy classification**
CO-1	Understand how object-oriented concepts are incorporated into the Java programming language	PSO1	Understand
CO-2	Build problem-solving skills using OOPS concept	PSO1	Create,Apply
CO-3	Develop the ability to handle exception in programming	PSO1	Create
CO-4	Design multithread programming concept in Java	PSO1 & PSO2	Create
CO-5	Construct efficient Java applets application using Java	PSO1 & PSO2	Create

III SEMESTER			
DSC6	**DATA STRUCTURES**		
Hrs / Week : 4 Hrs / Sem : 60 Hrs / Unit : 12 Credits :			
CO No.	**Upon completion of this course, students will be able to**	**PSO addressed**	**Blooms taxonomy classification**
CO-1	Understand the basic data structures for storage and retrieval of ordered or unordered data and their algorithm.	PSO1 & PSO3	Understand
CO-2	Explain array, structure and union data structure and their operations	PSO1 & PSO3	Understand
CO-3	Build stack and queue data structure and also evaluate the expression	PSO1 & PSO3	Apply
CO-4	Construct linked list data structure ,its types, operation and polynomial representation.	PSO1 & PSO3	Apply, Create
CO-5	Develop tree data structure and binary tree traversal.	PSO1 & PSO3	Create, Apply
CO-6	Discuss graph data structure , its operation and to find shortest path using different algorithms	PSO1 & PSO3	Create

III SEMESTER			
DSC7	SOFTWARE ENGINEERING		
Hrs/Week: 4	Hrs./ Unit:60		Credit:
CO No.	Upon completion of this course, students will be able to	PSO addressed	Blooms taxonomy classification
CO-1	Define and analyze complex problems, and design, implement and evaluate solutions.	PSO2	Remember, Analyze
CO-2	Understand software engineering practices in requirements engineering, system level architecture, design, construction, evaluation, and project management.	PSO2	Apply
CO-3	Classify system into modules and define interface between modules.	PSO2	Understand, remember
CO-4	Design and evaluate object oriented system and User Interface.	PSO1 & PSO2	Create
CO-5	Understand testing, costing and quality control.	PSO2	Understand

III SEMESTER			
DSE-1A	XML PROGRAMMING		
Hrs / Week : 4	Hrs / Sem : 60	Hrs / Unit : 12	Credits :
CO No.	Upon completion of this course, students will be able to	PSO addressed	Blooms taxonomy classification
CO-1	Understand the definition and structure of the Extensible Markup Language (XML)	PSO1	Understand
CO-2	Construct functional programming based on XSLT.	PSO1	Create
CO-3	Apply XML based applications for web development	PSO2	Apply
CO-4	Construct functional programming in document conversion.	PSO5	Apply
CO-5	Make use of most important tools and standards related to XML, particularly DTD, XML Schema, CSS and XSLT.	PSO5	Apply

III SEMESTER			
DSE-1B	DESK TOP PUBLISHING		
Hrs / Week : 4	Hrs / Sem : 60	Hrs / Unit : 12	Credits :
CO No.	Upon completion of this course, students will be able to	PSO addressed	Blooms taxonomy classification
CO-1	Explain the concepts of DTP and its software like page maker, CorelDraw and Photoshop	PSO5	Understand
CO-2	Design book, newspapers and visiting card using page maker software	PSO5	Create
CO-3	Understand CorelDraw tools to create graphics.	PSO5	Understand

CO-4	Construct objects using CorelDraw.	PSO5	Apply
CO-5	Explain photo editing using Photoshop software and its tools	PSO5	Understand, Apply

III SEMESTER			
AII-1	**GUI PROGRAMMING**		
Hrs / Week : 4	**Hrs / Sem : 60**	**Hrs / Unit : 12**	**Credits :**
CO No.	**Upon completion of this course, students will be able to**	**PSO addressed**	**Blooms taxonomy classification**
CO-1	Understand Visual Basic's Integrated Development Environment (IDE).	PSO1 & PSO2	Understand
CO-2	Apply decision structures and loop structures to perform various tasks.	PSO1 & PSO2	Apply
CO-3	Create manageable code using procedures, sub-procedures, and functions.	PSO1 & PSO2	Apply
CO-4	Create, store and retrieving database through data controls.	PSO1 & PSO2	Create
CO-5	Develop Windows applications using forms, controls, and events.	PSO1 & PSO2	Apply,Create

III SEMESTER			
NME-1	**INTRODUCTION TO PHOTO EDITING**		
Hrs / Week : 2	**Hrs / Sem :30**	**Hrs/Unit :6**	**Credits :**

CO No.	**Upon completion of this course, students will be able to**	**PSO addressed**	**Blooms taxonomy classification**
CO-1	Understand the basics of image manipulation concept	PSO5	Understand
CO-2	Show various color correction using color palette.	PSO5	Understand
CO-3	Make use of retouching and repairing techniques to correct images	PSO5	Apply
CO-4	Apply selection tools to an image	PSO5	Apply
CO-5	Create new layers and perform other basic functions	PSO5	Create

III SEMESTER			
DSCP-3	**JAVA PROGRAMMING CORE PRACTICAL**		
Hrs / Week : 4	**Hrs / Sem : 60**	**Credits :**	
CO No.	**Upon completion of this course, students will be able to**	**PSO addressed**	**Blooms taxonomy classification**
CO-1	Make use of Class, inheritance and interface	PSO-1	Apply

CO-2	Create package, user defined excepts and treads	PSO-1	Create
CO-3	Construct a frame for various controls	PSO-1	Apply,Create
CO-4	Construct applet for multiple shapes	PSO-1	Apply,Create
CO-5	Test various files in java	PSO-1	Create

III SEMESTER			
DSCP-4A **XML PROGRAMMING CORE PRACTICAL**			
Hrs / Week : 2 **Hrs / Sem : 30** **Credit :**			
CO No.	**Upon completion of this course, students will be able to**	**PSO addressed**	**Blooms taxonomy classification**
CO-1	Analyze document, schema creation	PSO-1	Apply
CO-2	Build a web page using CSS XSLT & Xpath	PSO-1	Create
CO-3	Design a web page using Xlink	PSO-1	Create
CO-4	Apply internal and external DTD	PSO-1	Apply
CO-5	Create XML document for importing and exporting document	PSO-1	Create

III SEMESTER			
DSCP4B **DTP CORE PRACTICAL**			
Hrs / Week : 2 **Hrs / Sem : 30** **Credit :**			
CO No.	**Upon completion of this course, students will be able to**	**PSO addressed**	**Blooms taxonomy classification**
CO-1	Make use of formatting and equations	PSO-1	Apply
CO-2	Build colors and styles in document	PSO-1	Create,Apply
CO-3	Apply word wrap and menu plugging	PSO-1	Apply
CO-4	Design various images using artistic tool	PSO-1	Create
CO-5	Create image using filter tools	PSO-1	Create

III SEMESTER			
AII-P-1 **GUI PROGRAMMING ALLIED PRACTICAL**			
Hrs / Week : 2 **Hrs / Sem : 30** **Credits :**			
CO No.	**Upon completion of this course, students will be able to**	**PSO addressed**	**Blooms taxonomy classification**
CO-1	Construct arithmetic calculator using button	PSO-1	Create
CO-2	Design forms using database controls	PSO-1	Create
CO-3	Create records to database	PSO-1	Create

CO-4	Construct report form	PSO-1	Create, Understand
CO-5	Create animation	PSO-1	Create

IV SEMESTER			
DSC8	**ASP.NET**		
Hrs / Week : 4 Hrs / Sem : 60 Hrs / Unit : 12 Credits :			
CO No.	**Upon completion of this course, students will be able to**	**PSO addressed**	**Blooms taxonomy classification**
CO-1	Create a Web form with server controls.	PSO1	Create
CO-2	Design page code using code-behind pages, page controls, and components.	PSO1	Create
CO-3	List out various aspects of validation controls	PSO1	Analyze
CO-4	Develop dynamic data from a data source by using Microsoft ADO.NET and data binding.	PSO1	Create
CO-5	Design web applications using ASP.NET	PSO1& PSO2	Create

IV SEMESTER			
DSC10	**COMPUTER NETWORKS**		
Hrs / Week : 4 Hrs / Sem : 60 Hrs / Unit : 12 Credits :			
CO No.	**Upon completion of this course, students will be able to**	**PSO addressed**	**Blooms taxonomy classification**
CO-1	Understand the basic concepts, definitions, and mechanisms at different hardware and software levels.	PSO3	Understand
CO-2	Classify the layers of OSI and TCP and discuss various aspects of congestion control and network security	PSO3	Understand
CO-3	Demonstrate the concepts of local, metropolitan, and wide area networks.	PSO3 & PSO4	Create
CO-4	utilize advanced wired and wireless technologies and protocols	PSO-1	Apply
CO-5	Compare the internetworking technology and applications.	PSO3	Understand

IV SEMESTER			
DSC9	**OPERATING SYSTEMS**		
Hrs / Week : 4 Hrs / Sem : 60 Hrs / Unit : 12 Credits :			
CO No.	**Upon completion of this course, students will be able to**	**PSO addressed**	**Blooms taxonomy classification**
CO-1	Understand the functions, structures, and history of operating systems;	PSO3	Understand
CO-2	Infer various process management concepts including scheduling, synchronization, and deadlocks	PSO3	Understand
CO-3	Summarize the concepts of memory management including virtual memory	PSO3	Understand
CO-4	Understand the concepts of various scheduling algorithms	PSO3	Understand
CO-5	Discuss issues related to storage systems, file system interface and implementation, and disk management	PSO3	Create

IV SEMESTER			
DSE-2B	**WEB DESIGNING**		
Hrs / Week : 4 Hrs / Sem : 60 Hrs / Unit : 15 Credits :4			
CO No.	**Upon completion of this course, students will be able to**	**PSO addressed**	**Blooms taxonomy classification**
CO-1	Apply critical thinking and problem solving skills required to successfully design and implement a web site.	PSO1 & PSO2	Apply
CO-2	Analyze, identify and define the technology required to build and implement a web site.	PSO1 & PSO2	Analyze
CO-3	Understand artistic and design components that are used in the creation of a web site using CSS.	PSO1 & PSO2	Understand, create
CO-4	Utilize and apply the technical, ethical and interpersonal skills.	PSO1 & PSO2	Apply
CO-5	Apply script on web page design.	PSO1 & PSO2	Apply

IV SEMESTER			
DSE2-A	**UNIX & SHELL PROGRAMMING**		
Hrs / Week : 4	**Hrs / Sem : 60 Hrs / Unit : 12 Credits :**		
CO No.	**Upon completion of this course, students will be able to**	**PSO addressed**	**Blooms taxonomy classification**
CO-1	Understand UNIX Operating System and its File System	PSO3	Understand
CO-2	List out important aspects related to the SHELL and the process	PSO3	Understand
CO-3	Formulate regular expressions and use them for pattern matching.	PSO3	Create
CO-4	Make use of Vi editor to edit text	PSO3	Apply
CO-5	Analyze a given problem and apply requisite facets of SHELL programming in order to devise a SHELL script to solve the problem	PSO1 & PSO3	Analyze

IV SEMESTER			
AII-2	**RDBMS WITH ORACLE**		
Hrs / Week : 4 Hrs / Sem : 60 Hrs / Unit : 12 Credits :			
CO No.	**Upon completion of this course, students will be able to**	**PSO addressed**	**Blooms taxonomy classification**
CO-1	Understand relational database management system.	PSO1	Understand
CO-2	Understand what basic relational algebra operators.	PSO1	Understand
CO-3	Create tables using SQL DDL,DML,DCL,TCL	PSO1	Create
CO-4	Apply integrity constraints in database.	PSO1, PSO2 & PSO3	Apply
CO-5	Apply normalization techniques to normalize the database	PSO1, PSO2 & PSO3	Apply

IV SEMESTER			
NME 2	**INTRODUCTION TO INTERNET AND HTML**		
Hrs / Week : 2	**Hrs / Sem : 30 Hrs / Unit : 6 Credits :**		
CO No.	**Upon completion of this course, students will be able to**	**PSO addressed**	**Blooms taxonomy classification**
CO-1	Understand the basics of internet technologies	PSO5	Understand
CO-2	Build web pages using HTML tags	PSO5	Create
CO-3	Create tables and links for a web page	PSO5	Create
CO-4	Apply frames for web page	PSO5	Apply
CO-5	Design web forms	PSO5	Create

IV SEMESTER			
DSCP5 **ASP.NET CORE PRACTICAL**			
Hrs / Week : 4 **Hrs / Sem : 60** **Credits :**			
CO No.	**Upon completion of this course, students will be able to**	**PSO addressed**	**Blooms taxonomy classification**
CO-1	Build a web form using various controls	PSO-2	Apply,Create
CO-2	Apply the concept of code behind files	PSO-2	Apply
CO-3	Demonstrate the hyperlink and validation control	PSO-2	Understand
CO-4	Design greeting card using web controls	PSO-2	Create
CO-5	Create login page	PSO-2	Create

IV SEMESTER			
DSCP-6A **UNIX & SHELL PROGRAMMING CORE PRACTICAL**			
Hrs / Week : 2 **Hrs / Sem : 30** **Credit :**			
CO No.	**Upon completion of this course, students will be able to**	**PSO addressed**	**Blooms taxonomy classification**
CO-1	Design multiplication table	PSO-1	Create
CO-2	Find factorial and simple internet	PSO-1	Remember
CO-3	Construct Fibonacci series,	PSO-1	Apply,Create
CO-4	Make use of copy, move, sort, grep command	PSO-1	Create
CO-5	Construct mark list	PSO-1	Apply,Create

IV SEMESTER			
DSCP-6B **WEB DESIGNING CORE PRACTICAL**			
Hrs / Week : 2 **Hrs / Sem : 30** **Credit :**			
CO No.	**Upon completion of this course, students will be able to**	**PSO addressed**	**Blooms taxonomy classification**
CO-1	Make use of Bold tag, centre tag, Heading tag & Font tag	PSO-1 & PSO-2	Apply
CO-2	Design a web page	PSO-1	Create
CO-3	Make use of formatting elements	PSO-1	Apply
CO-4	Create semester marks, time table construct table for various applications	PSO-1	Create
CO-5	Develop a web page using CSS	PSO-1	Apply

	IV SEMESTER		
AII-P-2	RDBMS WITH ORACLE	ALLIED PRACTICAL	
Hrs / Week : 2	Hrs / Sem : 30	Credits :	
CO No.	Upon completion of this course, students will be able to	PSO addressed	Blooms taxonomy classification
CO-1	Construct table using Constraints	PSO-1	Apply
CO-2	Make use of where class, date , character functions	PSO-1	Apply
CO-3	Construct joining table function & Exception handling	PSO-1	Apply,Create
CO-4	Create cursor, trigger, package	PSO-1	Create
CO-5	Test various functions	PSO-1	Create

	V SEMESTER	
DSC 11	COMPUTER GRAPHICS & MULTIMEDIA	18UCCA51

CO No.	Upon completion of this course, students will be able to	PSO addressed	Blooms taxonomy classification
CO-1	Understand the basics of computer graphics, different graphics systems and applications of computer graphics.	PSO5	Understanding
CO-2	Build various shapes and filling algorithm.	PSO5	Creating
CO-3	Analyze various scan conversion algorithm.	PSO5	Analyzing
CO-4	Experiment with the concepts of different type of geometric transformation of objects in 2D and 3D.	PSO5	Applying
CO-5	Understand the practical implementation of modeling, rendering, viewing of objects in 2D.	PSO5	Understanding
CO-6	Show knowledge about clipping algorithms.	PSO5	Remembering
CO-7	Demonstrate knowledge about multimedia basics and its tools.	PSO5	Understanding

	V SEMESTER	
DSC 12	PHYTHON PROGRAMMING	18UCCA52

CO No.	Upon completion of this course, students will be able to	PSO Addressed	Blooms taxonomy classification
CO-1	Explain how to install Python and understand its basic operations.	PSO1	Understanding

CO-2	Illustrate to use lists, tuples, and dictionaries in Python programs.	PSO1	Understanding
CO-3	Explain to use built in functions and develop function in Python.	PSO1 & PSO2	Understanding
CO-4	Design classes and modules in python.	PSO2	Creating
CO-5	Manipulate file system in Python.	PSO1	Evaluating
CO-6	Handle errors and exception in Python applications.	PSO1 & PSO2	Evaluating

V SEMESTER		
DSC 13	**MOBILE COMPUTING**	**18UCCA53**

CO No.	Upon completion of this course, students will be able to	PSO Addressed	Blooms taxonomy classification
CO-1	Understand fundamentals of wireless communications.	PSO5	Understanding
CO-2	Analyze security, energy efficiency, mobility, scalability, and their unique characteristics in wireless networks.	PSO5	Analyzing
CO-3	Demonstrate basic skills for cellular networks design.	PSO5	Understanding
CO-4	Apply knowledge of TCP/IP extensions for mobile and wireless networking.	PSO5	Applying
CO-5	Evaluate the role of mobile applications in software intensive systems.	PSO5	Evaluating

V SEMESTER		
DSE-3A	**MONGODB PROGRAMMING**	**18UECA5A**

CO No.	Upon completion of this course, students will be able to	PSO Addressed	Blooms taxonomy classification
CO-1	Understanding the basics of data storage in MongoDB.	PSO1	Understanding
CO-2	Explain how to run queries against a MongoDB. instance for data manipulation.	PSO1, PSO2 & PSO3	Understanding
CO-3	Evaluate query through Index in MongoDB.	PSO3	Evaluating
CO-4	Utilize Driver and Replication for the same ends	PSO2 &	Applying

	in order to manipulate data	PSO3	
CO-5	Design and maintain database as administrator.	PSO3	Applying, Creating

V SEMESTER		
DSE-3B	**C# PROGRAMMING**	**18UECA5B**

CO No.	Upon completion of this course, students will be able to	PSO Addressed	Blooms taxonomy classification
CO-1	Knowledge of the structure and model of the programming language C#.	PSO1	Understanding
CO-2	Use the programming language C # for various programming technologies.	PSO1 & PSO2	Applying
CO-3	Develop software in C#.	PSO2	Applying
CO-4	Evaluate user requirements for software functionality required to decide whether the programming language C # can meet user requirements.	PSO2	Evaluating
CO-5	Propose the use of certain technologies by implementing them in the C # programming language to solve the given problem.	PSO2	Applying
CO-6	Choose an engineering approach to solving problems, starting from the acquired knowledge of programming and knowledge of operating systems.	PSO2	Analyzing

V SEMESTER		
DSCP7	**COMPUTER GRAPHICS & MULTIMEDIA PRACTICALS**	**18UCCA5P1**

CO No.	Upon completion of this course, students will be able to	PSO addressed	Blooms taxonomy classification
CO-1	Understand various text styles	PSO5	Understanding
CO-2	Understand DDA and Bresenhem's algorithm	PSO5	Understanding
CO-3	Demonstrate filling algorithms	PSO5	Applying
CO-4	Create graphics for transformation of object	PSO5	Applying
CO-5	Develop a program to animate an object	PSO5	Creating

	V SEMESTER		
DSEP-3A	**MONGODB PROGRAMMING PRACTICALS**		**18UCCA5PA**

CO No.	Upon completion of this course, students will be able to	PSO addressed	Blooms taxonomy classification
CO-1	Build a database and insert data into it	PSO5	Understanding
CO-2	Build a database to update and delete a data into it	PSO5	Understanding
CO-3	Create a database and sort out the elements in the database	PSO5	Applying
CO-4	Create and drop index	PSO5	Applying
CO-5	Create a query using group and remove functions	PSO5	Creating

	V SEMESTER	
DSEP-3B	**C# PROGRAMMING PRACTICALS**	**18UCCA5PB**

CO No.	Upon completion of this course, students will be able to	PSO addressed	Blooms taxonomy classification
CO-1	Build an array to find out the maximum value	PSO5	Understanding
CO-2	Understand a factorial and generate Fibonacci series for a given number	PSO5	Understanding
CO-3	Evaluate various function values	PSO5	Applying
CO-4	Create two matrices and perform addition, subtraction and multiply it.	PSO5	Applying
CO-5	Build a class to throw user defined exception	PSO5	Creating

	V SEMESTER	
SEC-I	**BASIC MATHEMATICS**	**18USCA51**

CO No.	Upon completion of this course, students will be able to	PSO Addressed	Blooms taxonomy classification
CO-1	Able to set up and solve linear systems, permutation and quadratic equations.	PSO1	Applying
CO-2	Able to formulate problems in the language of sets and perform set operations, and will be able apply the Fundamental Principle of Counting, Multiplication Principle.	PSO1	Applying

CO-3	Solve applied problems using matrices.	PSO1	Applying
CO-4	Apply the Fundamental Theorem of Calculus.	PSO1	Applying
CO-5	Use matrix algebra and the related matrices to linear transformations.	PSO1	Applying
CO-6	Able to perform and solve various arithmetic problems.	PSO1	Applying

V SEMESTER		
SEC-II	DIGITAL MARKETING	18USCA61

CO No.	Upon completion of this course, students will be able to	PSO Addressed	Blooms taxonomy classification
CO-1	Discuss the e-Commerce process.	PSO3	Understanding
CO-2	Describe an example of system architecture for an e-Business.	PSO3	Understanding
CO-3	Understand growth of M-commerce Technology.	PSO3 & PSO4	Understanding
CO-4	Identify the major electronic payment issues and options.	PSO4	Understanding
CO-5	Discuss security issues and explain procedures used to protect against security threats.	PSO3 & PSO4	Understanding

VI SEMESTER		
DSC 14	ADVANCED JAVA PROGRAMMING	18UCCA61

CO No.	Upon completion of this course, students will be able to	PSO Addressed	Blooms taxonomy classification
CO-1	Design and Develop Swing-based GUI.	PSO2	Creating , Applying
CO-2	Develop client/server applications and TCP/IP socket programming.	PSO2 &PSO3	Applying
CO-3	Develop and retrieve the data from the databases using SQL.	PSO1 & PSO2	Applying
CO-4	Create distributed applications using RMI.	PSO3	Creating
CO-5	Develop server side programs in the form of servlets.	PSO3	Creating

	VI SEMESTER		
DSC 15	**SOFTWARE PROJECT MANAGEMENT**		**18UCCA62**

CO No.	Upon completion of this course, students will be able to	PSO Addressed	Blooms taxonomy classification
CO-1	Understand how to manage software project scope and objectives.	PSO2	Understanding
CO-2	Learn project cost evaluation and estimation techniques.	PSO2	Remembering
CO-3	Understand how to manage risk in software project management.	PSO3	Understanding
CO-4	Learn how to monitor the software projects.	PSO3	Remembering
CO-5	Understand how to produce quality software.	PSO3	Understanding

	VI SEMESTER		
DSC 16	**PROJECT**		**18UCCA63**

CO No.	Upon completion of this course, students will be able to	PSO Addressed	Blooms taxonomy classification
CO-1	Identify the potential areas of research in the software field.	PSO2	Applying
CO-2	List out the data from various sources like real data.	PSO4	Remembering
CO-3	Interpret the concept of online software model.	PSO2	Understanding
CO-4	Experiment with real data in the software.	PSO4	Applying
CO-5	Create and develop the software.	PSO5	Creating

	VI SEMESTER		
DSE-4A	**PHP WITH MYSQL**		**18UECA6A**

CO No.	Upon completion of this course, students will be able to	PSO Addressed	Blooms taxonomy classification

CO-1	Discuss the concepts of PHP and its advantages over other languages.	PSO1	Understanding
CO-2	Use HTML form elements that work with any server-side language	PSO1	Understanding
CO-3	Create a dynamic web page using PHP	PSO1 & PSO2	Understanding
CO-4	Develop Database connectivity using MySQL.	PSO2	Creating
CO-5	Use a PHP editing program.	PSO1	Evaluating

VI SEMESTER		
DSE-4B	**CORE ANDROID APPLICATION**	**18UECA6B**

CO No.	Upon completion of this course, students will be able to	PSO Addressed	Blooms taxonomy classification
CO-1	Understand and configure Android application development tools.	PSO1 & PSO3	Understanding
CO-2	Understand Fundamentals of Android frame work and XML.	PSO3	Understanding
CO-3	Design and develop user Interfaces for the Android platform.	PSO4	Creating
CO-4	Design screen Layouts, User Interface.	PSO4	Creating
CO-5	Apply Java programming concepts to Android application development.	PSO4	Applying

VI SEMESTER		
DSCP- 9	**ADVANCED JAVA PROGRAMMINGPRACTICALS**	**18UCCA6P1**

CO No.	Upon completion of this course, students will be able to	PSO addressed	Blooms taxonomy classification
CO-1	Demonstrate Applet, Swing, Event Handling	PSO5	Understanding
CO-2	Develop applications using JDBC and Servelet	PSO5	Understanding
CO-3	Demonstrate Java Beans and Cookies	PSO5	Applying
CO-4	Create check boxes to display various courses	PSO5	Applying
CO-5	Demonstrate state management using Servelets	PSO5	Creating

	VI SEMESTER	
DSCP- 10A	**PHP WITH MYSQL PRACTICALS**	**18UECA6PA**

CO No.	Upon completion of this course, students will be able to	PSO addressed	Blooms taxonomy classification
CO-1	Build if else, while loop statement	PSO5	Understanding
CO-2	Develop multiplication tables	PSO5	Understanding
CO-3	Construct a code for string and array functions	PSO5	Applying
CO-4	Display temperature highest and lowest	PSO5	Applying
CO-5	Build a database & add, delete and modifying records	PSO5	Creating

	VI SEMESTER	
DSCP- 10B	**CORE ANDROID APPLICATION PRACTICALS**	**18UECA6PB**

CO No.	Upon completion of this course, students will be able to	PSO addressed	Blooms taxonomy classification
CO-1	Demonstrate alert, check and Radio button	PSO5	Understanding
CO-2	Develop list view & spinner in Android	PSO5	Understanding
CO-3	Build gallery view and date & time in Android	PSO5	Applying
CO-4	Understand menus in Android picker	PSO5	Applying
CO-5	Build a database connectivity in Android	PSO5	Creating

	VI SEMESTER	
SBC	**PERSONALITY DEVELOPMENT**	**18USPD62**

CO No.	Upon completion of this course, students will be able to:	PSO Addressed	Blooms taxonomy classification
CO-1	Lead an honorable life with a great deal of self-awareness, self-esteem and self-respect.	PSO3	Understanding
CO-2	Shine as an exemplary model with impeccable character traits.	PSO1	Applying
CO-3	Set a reasonably challenging goal exerting enough labour and effectively managing time.	PSO1	Analyzing
CO-4	Build relationships in a world filled with different ideologies, overcome social conflicts, excel in team work and contribute constructively.	PSO1	Analyzing
CO-5	Exhibit skills and manners required in the place of work and win over the approbation of the employers.	PSO3	Understanding