PROGRAMME OUTCOMES AND COURSE OUTCOMES

2022 – 2023

NAME OF THE PROGRAMME: BCA **PROGRAMME CODE: USCA**

Programme Outcomes:

PO 1	Understand, analyze and apply the concepts of latest technologies to bring solutions to the problems in the areas of computer applications.
PO 2	Analyze and synthesize computing systems through quantitative and qualitative techniques along with effective verbal and non-verbal communication.
PO 3	Apply technical and professional skills practically to excel in providing solutions for solving complex real life problems satisfying industrial and societal needs.
PO 4	Understand & analyze the technical data through innovative methodologies with legal ethics to reach out actionable conclusions.
PO 5	To promote leadership skills and also as an individual on working with multi disciplinary projects using Modern computing tools and Open Source Technologies.
PO 6	Commit to professional ethics and cyber regulations considering the societal and environmental issues within local and global contexts for sustainable development

Course Outcomes:

Course Code	Course Title	Course Outcomes
19J1CC1	PROGRAMMING IN C	CO1: Acquire basic understanding of C programming CO2: Illustrate how arrays and strings are implemented in C CO3:Utilize the knowledge of Functions and Pointers CO4:Analyze the memory management concept in C using structure and Unions CO5:Outline the file operations in C
19J1CC2	LAB IN C PROGRAMMING	CO1: Acquire basic understanding of C programming CO2:Illustrate how arrays and strings are implemented in C CO3:Utilize the knowledge of Functions and Pointers CO4:Analyze the memory management concept in C using structure and Unions CO5:Outline the file operations in C

21J1NME	NON MAJOR ELECTIVE – I ANIMATION TOOLS AND TECHNIQUES	CO1: Apply object properties, methods and events CO2: Design, create and edit animation scenes and interactive movies CO3: Utilize event handling methods and properties CO4: Demonstrate story boards and animation movies CO5: Utilize and understand different sounds and sound formats in alice
19J2CC3	OBJECT ORIENTED PROGRAMMING IN C++	CO1:Assess the object – oriented concepts in C++ CO2:Illustrate the usage of Functions in C++ CO3:Analyze advanced features of C++ specifically stream I/O and overloading CO4:Demonstrate on Inheritance and Virtual Classes CO5:Outline the file operations in C++
19J2CC4	LAB IN C++ PROGRAMMING	CO1:Read, understand and trace the execution of programs written in C++ language

		CO2:Demonstrate class and object functions CO3:Assess operator overloading and function overloading to specific problem definition CO4:Demonstrate file operations in C++. CO5:Write C++ code to demonstrate each concept
19J3CC5	OPERATING SYSTEMS	CO1:Outline the structure of OS,basic architectural components CO2:Analyze on the different scheduling algorithms and critical section problems CO3:Critique device and resource management techniques by concentrating on deadlocks CO4:Identify and know about memory management techniques CO5:Interpret the mechanisms adopted for file sharing in distributed Applications
19J3CC6	LAB IN RELATIONAL DATABASE MANAGEMENT	CO1: Critique SQL commands to create tables and indexes CO2: Apply DDL and DML commands in real time applications

	SYSTEMS	CO3: Understand the needs of triggering applications CO4: Disseminate knowledge of RDBMS and SQL, both in terms of design and implementation usage CO5: Write dynamic queries to demonstrate the concepts of RDBMS
19AC3ACJ3	PRINCIPLES OF FINANCIAL ACCOUNTING AND ACCOUNTING PACKAGE	CO 1:Understand the basic concepts of company creation in tally CO 2: It tells how to work with Journals, Ledgers and Cash Flow Statements. CO 3: It is the language that managers use to communicate with the terms of accounting. CO 4:The firm's financial and economic information can be shared to external parties such as shareholders and creditors. CO 5:Create and display single and multiple stock groups and stock categories
19J3SB1	SKILL BASED – I	CO1: Apply quantitative techniques to solve variety of problems.

	LOGICAL REASONING AND DATA INTERPRETATION	CO2: Perform statistical analysis to interpret information. CO3Apply the aptitude tricks, shortcuts and formulas CO4: Acquire clear understanding on easily solving the reasoning. CO 5:Focuses in clearing the competitive, Campus and entrance online tests
19J4CC7	DATA STRUCTURES AND ALGORITHMS	CO1: Assess the concept of various data structures and the logic behind their workings CO2: Compare various ADT CO3: Utilize trees and graphs in real time application CO4: Compare the various Directed and Undirected Graphs. CO5: Analyze case studies to implement and comment about performance of algorithms.
19J4CC8	LAB IN WEB PROGRAMMING	CO1:Select and apply mark-up languages for processing and presenting information in web pages. CO2:Design and implement dynamic websites with good aesthetic sense of designing. CO3:Use fundamental skills to maintain web server services required to

		host a website. CO4:Prepare the students to write a well formed DB connection CO5:Create WebPages for any application using database connectivity
19P4ACJ4	DIGITAL PRINCIPLES AND COMPUTER ORGANIZATION	CO1: Identify the anatomy of computers CO2: Compare the various memory units along with the storage devices CO3: Demonstrate and perform computer arithmetic operations on integer and real numbers CO4: Analyze the performance of Gates CO5: Conceptualize the basics of organizational and architectural issues of a digital computer with logics
19J4SB2	SKILL BASED – II DATA ANALYSIS USING SPREADSHEETS	CO1:Customize the Ribbons of Spreadsheets CO2:Perform statistical analysis using charts CO3:Apply the aptitude tricks, shortcuts and formulas CO4 Compare all the functions available CO5:Focuses on the protection of data in spreadsheets

19J5CC9	SOFTWARE ENGINEERING	CO1: Compare the various software models. CO2: Use knowledge, techniques, skills and modern tools necessary for software engineering practice CO3: Analyze on the design factors and guidelines CO4: Understand the different types of testing used in softwares CO5: Understand the various types of Testing tools
19J5CC10	JAVA PROGRAMMING	CO1:Acquire in depth knowledge in Java programming concepts CO2:Identify and analyze platform independent environment and byte code generation CO3:Build, Execute and Debug java programs along with Exceptions CO4:Design and Implement packages CO5:Write, Compile and Execute applet programs which includes GUI
19J5CC11	LAB IN JAVA PROGRAMMING	CO1:Acquire in depth knowledge in Java programming concepts CO2:Identify and analyze platform independent environment and byte

		code generation CO3:Build, Execute and Debug java programs along with Exceptions CO4:Design and Implement packages CO5:Write, Compile and Execute applet programs which includes GUI
19J5CC12	LAB IN DOT NET PROGRAMMING	CO1:Use Dot Net Framework along with the features of C# CO2:Create websites to explore database connectivity CO3:Analyze debugging WebPages through case studies CO4:Use the different types of master page creation CO5:Create different dynamic websites for applications
19J5ME1	CLOUD COMPUTING	CO1: Outline problems and evaluate various cloud computing solutions CO2: Outline Cloud service and deployment models CO3: Identify the architecture and infrastructure of cloud computing including SaaS,PaaS, IaaS, public cloud, private cloud, hybrid cloud and community cloud

		CO4: Predict security issues and formulate recovery mechanisms CO5: Understand the concept of virtualization
19J5ME2	MOBILE COMPUTING	CO1: Create the infrastructure to develop mobile communication systems CO2: Assess the characteristics of emerging technologies in mobile communication CO3: Critique new knowledge in the field of computer science by using appropriate research methodologies CO4: Analyze on the various software kits available CO5: Assess the characteristics of Mobile Components and Applications
19J5SB3	SKILL BASED – III LAB IN ANIMATION TECHNIQUES	CO1: Analyze on the various tools of Photoshop CO2: Compare different types of filters used in Photoshop CO3: Apply the techniques available in CorelDraw CO4: Understand the Open Source techniques in editing

		CO5: Create animated banners and various simple animations
19J5SB4	SKILL BASED – IV LAB IN E – CONTENT DEVELOPMENT	CO1: Understand E-Learning with respect to its needs, challenges and benefits CO2: Explain the components of Authoring tools and E-learning standards CO3: Apply Audio editing techniques for creating podcasts CO4: Understand the techniques of creating customized lessons CO5: Create videos using online tools
19J6CC13	PYTHON	CO1:Identify different Python object types CO2:Discuss how to use indexing and slicing to access data in Python programs CO3:Assess structure and components of a Python program CO4:Write programs to demonstrate loops and decision statements in Python CO5:Build and package in Python modules for reusability

19J6CC14	COMPUTER NETWORKS	CO1: Outline the functionalities of OSI reference model CO2: Discuss guided and unguided media and its real time usage and applications CO 3: Analyze on the design issues of DLL CO4: Demonstrate various routing algorithms through case studies CO 5: Assess real time web and network security mechanisms
19J6CC15	LAB IN PYTHON	CO1:Identify different Python object types CO2:Discuss how to use indexing and slicing to access data in Python programs CO3:Assess structure and components of a Python program CO4:Write programs to demonstrate loops and decision statements in Python CO5:Build and package in Python modules for reusability
19J6ME3	SECURITY PRACTICES	CO1: Understand the concept of cryptography

		CO2: Compare on the encryption techniques available CO3: Evaluate the Various tools and tactics followed in military CO4: Predict the forensics fundamentals and the various technologies used to avoid computer crimes. CO5: Illustrate different methods to collect and preserve digital evidence and Digital Crime Scene
19J6ME4	DATA MINING	CO1:Analyze data mining algorithms, methods, and tools CO2:Identify business applications of data mining CO3:Predict quantitative analysis report to make decisions CO4:Outline the developing areas web mining, text mining, and ethical aspects of data mining CO5: Compare the various applications ofData Mining
19J6ME5	INTERNET OF THINGS (IoT)	CO1: Design IOT based Prototypes CO2: Explain how sensors and embedded systems work CO3: Analyze and visualize sensor data

		CO4: Formulate real World IoT design Constraints and Industrial Automation in IoT CO5: Work with IoT
19J6ME6	HUMAN COMPUTER INTERACTION	CO1: Identify problems that are amenable to solution by AI methods CO2: Formulate search problems and implement search algorithms using admissible heuristics CO3: Analyze on the basics and architecture of VR systems CO4: Identify the human factors, effects and impact of VR CO5: Apply the VR technology in different applications
19J6SB5	SKILL BASED – V LAB IN PHP	CO1: Demonstrate how server – side programming works on the web CO2: Use PHP built – in functions and creating custom functions CO3: Create a database in phpMyAdmin CO4: Create dynamic web pages CO5: Design websites for various applications

19J6SB6	SKILL BASED – VI LAB IN LINUX	CO1:Analyze the inner workings of LINUX operating systems CO2:Utilize Linux system to accomplish typical personal, office, technical, and softwaredevelopment tasks CO3:Use Linux utilities to create and manage simple file processing CO4:Use operations, organizedirectory structures with appropriate security CO5: Formulate shell scripts to perform more complex tasks

NAME OF THE PROGRAMME: PGDCA PG Diploma in Computer Applications

Programme Outcomes:

PO 1	To learn the latest trends in various subjects of computers applications.
PO 2	To learn computer applications in different fields like banking, insurance, software industry, govt& Corporate sectors.
PO 3	To provides specialisation in computer science with technical, professional and communications skills. It also trains students to become future IT professionals.
PO 4	To design, implement and evaluate a computer-based system, process, component, or programme.
PO 5	To Design and develop applications to analyze and solve all computer related problems.

Course Outcomes:

Course Code	Course Title	Course Outcomes
19PDB101	Computer Fundamentals	CO1: Understand the basic terminology of computers. CO2: Explain the basic components and storage. CO3: Understand the computer software and languages. CO4: Understand the components of network and its architecture. CO5: Outline the cloud services and infrastructure.

19PDB102	Problem solving using C	CO1: Understand the basic concepts in C CO2: Explain the functionalities of arrays and strings CO3: Understand the usage and implementations of functions CO4: Understand the basic concepts of functions CO5: Outline the concept of structure and pointer
19PDB103	Web Designing	CO1: Understand the basic concepts in HTML CO2: Explain the Text formatting & Tables CO3: Understand the usage and implementations of Graphics and frames CO4: Understand the Script in PHP CO5: Outline the database connectivity

19PDB104	Lab –I Programming in C	CO1: Understand the conditional and looping statements CO2: Explain the arrays and string functions CO3: Understand the pointers CO4: Understand the functions CO5: Outline the concept of structure
19PDB105	Lab –II Web Programming	CO1: Understand the Webpage creation CO2: Explain the tables and frames CO3: Understand the Stylesheets CO4: Understand the Database creation CO5: Outline the Connectivity with database

19PDB106	Lab –III Design Techniques	CO1: Analyze on the various tools of Photoshop CO2: Compare different types of filters used in Photoshop CO3: Apply the techniques available in CorelDraw CO4: Create animated banners and various simple animations CO5: How to prepare and process photos for the Web.
19PDB201	Database Management System	CO1: Critique SQL commands to create tables and indexes CO2: Apply DDL and DML commands in real time applications CO3: Understand the needs of triggering applications CO4: Disseminate knowledge of RDBMS and SQL, both in terms of design and implementation usage CO5: Write dynamic queries to demonstrate the concepts of RDBMS

21PDB202	Python	CO1: Assess why Python is a useful scripting language for developers. CO2: Identify Python object types. CO3: Illustrate the usage of Lists, tuples, and Dictionaries in Python Programs. CO4: Acquire how to design and program Python applications. CO5: Outline the file operations in Python.
19PDB203	Lab –IV RDBMS	CO1: Critique SQL commands to create tables and indexes CO2: Apply DDL and DML commands in real time applications CO3: Understand the needs of triggering applications CO4: Disseminate knowledge of RDBMS and SQL, both in terms of design and implementation usage CO5: Write dynamic queries to demonstrate the concepts of RDBMS

21PDB204	Lab –V Python Programming	CO1: Assess why Python is a useful scripting language for developers. CO2: Identify Python object types. CO3: Illustrate the usage of Lists, tuples, and Dictionaries in Python Programs. CO4: Acquire how to design and program Python applications. CO5: Outline the file operations in Python.