

## PARK'S COLLEGE (AUTONOMOUS), TIRUPUR

#### **BCA**

### **VISION**

Attain global excellence in the field of education and training and produce professionals of world standards to face the competitive tomorrow. Accept and adhere to the latest emerging technologies without crossing the boundaries of our rich culture.

### **MISSION**

Create human assets with high ethics who would considerably contribute for the betterment of the nation.

Provide a curriculum that better matches the requirements of the individual, industry and the society.

Keep quality education affordable and reachable to all segments and sections of the society.

Welcome technological developments in full swing and implement the best of them constantly.

### PROGRAMME EDUCATIONAL OBJECTIVES (PEO)

Under Graduate of BCA program will be

**PEO1:** Use and develop skills as required for effective professional practices, and be employed successfully or continue their professional education.

**PEO2:** Apply knowledge of computing, mathematics and basic sciences that are relevant and appropriate to the domain.

**PEO3:** Lead a successful technical or professional career including supportive and leadership roles on multidisciplinary teams.

### **Programme Outcomes (PO) for BCA**

On completion of BCA programme, the students are expected to

**PO1:** Apply the knowledge of mathematics, science, and computing to the solution of complex scientific problems.

**PO2:** Identify, formulate, research literature, and analyze complex scientific problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and applied sciences.

**PO3:** Design solutions for complex problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

**PO4:** Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

**PO5:** Create, select, and apply appropriate techniques, resources, and modern computing and IT tools including prediction and modeling to complex scientific activities with an understanding of the limitations.

**PO6:** Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional practice.

**PO7:** Understand the impact of the professional software engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

**PO8:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the scientific practice.

**PO9:** Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

**PO10:** Communicate effectively on complex activities with the scientific community and with the society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

**PO11:** Demonstrate knowledge understanding of the scientific and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

**PO12:** Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

# **COURSE OUTCOMES**

Course Code and Course Name	Course Outcomes
Language-I	CO1: புதுக்கவிதை, மரபுக்கவிதை வாயிலாக இலக்கிய, வாழ்வியல் அறநெறிகளை உரைத்தல். CO2: சிறுகதை வழி வெளிப்படும் சமுதாயச் சிந்தனைகளை அறிந்து விழிப்புணர்வைப் பெறுதல். CO3: தன்னம்பிக்கையை ஏற்படுத்தல். CO4: மாணவர்களுக்கு மொழி அறிவை வளர்த்தல். CO5: இலக்கியங்கள் தோன்றி வளர்ந்த பின்புலத்தையறிதல்.
E01 English-I	<ul> <li>CO1: To identify English as an easy language for the purpose of learning</li> <li>CO2: To acquire language skills with literary appreciation and critical thinking</li> <li>CO3: To construct a sentence competitively in the spoken and written communication</li> <li>CO4: To develop a passion for Literature and language</li> <li>CO5: To develop the different usage of sentences and modes of letter writing</li> </ul>
26AGC1 Programming In C	<ul> <li>CO1: Understand the basic terminology used in C programming.</li> <li>CO2: Write, compile and debug programs in C language.</li> <li>CO3: Design programs involving decision structures, loops and functions.</li> <li>CO4:Understand the dynamics of memory by the use of pointers.</li> <li>CO5: Understand the concept of files in C language.</li> </ul>
26AGC2 Digital Fundamentals And Computer Organization	CO1: Acquire knowledge about Number System and Binary Codes, Complements, BCD, Excess3, Gray Code CO2: Knowledge on Logic Circuits, Half adder, Full adder CO3: Acquire knowledge about Register and Counter CO4: Knowledge on Priority Interrupt Asynchronous data transfer CO5: Acquire knowledge Memory Organization
26AAL1 Mathematical Structure For Computer Science	<ul> <li>CO1: Understand the basic concept Matrix.</li> <li>CO2: Know the concept of Numerical Algebra</li> <li>CO3: Know about Simultaneous Linear Algebraic Equations</li> <li>CO4: Know about Interpolation and Newton's forward and Backward for equal intervals</li> <li>CO5: Understand the Numerical Differentiation</li> </ul>
26ACL1 Programming In C Lab	<ul> <li>CO1: Understand the basic concept of C Programming.</li> <li>CO2: Acquire the knowledge about Operators, Control Statements &amp; Looping.</li> <li>CO3: Understand the role of functions and files involving the idea of modularity.</li> <li>CO4: Understand the string operations in detail.</li> <li>CO5: Acquire the knowledge about the pointer concept.</li> </ul>

Course Code and Course	Course Outcomes
Name	
FCA Environmental Studies	<ul> <li>CO1: Understand and gain a rigorous foundation in various scientific disciplines as they apply to environmental science, such as ecology, evolutionary biology, hydrology, and human behaviour.</li> <li>CO2: Understand the primary environmental problems and the science behind those problems and potential solutions.</li> <li>CO3: Acquire the knowledge about the social issues.</li> <li>CO4: Learn about the field work of the environmental issues.</li> <li>CO5: Acquire the knowledge about the pollution and its effects.</li> </ul>
SS1 Communicative English	<ul> <li>CO1: Develop and effectively communicate through verbal/oral communication and improve the listening skills.</li> <li>CO2: Develop and actively participate in group discussion / meetings interviews and prepare &amp; deliver presentations.</li> <li>CO3: Understand and develop effectively in multi-disciplinary and heterogeneous teams through the knowledge of team work, inter-personal relationships, conflict management and leadership quality.</li> <li>CO4: Understand the individual through goal/target setting, self motivation and practicing creative thinking.</li> <li>CO5: Enrich the personality.</li> </ul>
Language-II	CO1: சிற்றிலக்கியம், காப்பியம் வாயிலாக இலக்கிய, வாழ்வியல் அறநெறிகளை உரைத்தல். CO2: கட்டுரை வழி வெளிப்படும் சமுதாயச் சிந்தனைகளை அறிந்து விழிப்புணர்வைப் பெறுதல். CO3: தன்னம்பிக்கையை வளர்த்தல். CO4: இலக்கணங்களைக் கற்று தருதல், படைப்புத் திறனை உக்குவித்தல். CO5: மாணவர்களை வேலை வாய்ப்புடன் கூடிய போட்டித் தேர்வுகளுக்குத் தயார்ப்படுத்துதல்.
E02 English-II	<ul> <li>CO1: To read and comprehend English in the context of acquisition of soft (life) skill.</li> <li>CO2: To acquire knowledge about three basic genres of literature namely poetry, prose and drama along with their subdivisions emergence in various ages.</li> <li>CO3: To understanding of the various aspects of the Essay-its elements, kinds, structure and the nuances of language</li> <li>CO4: To communicate clearly, effectively and handle their day to day affairs well with their knowledge of language skills.</li> <li>CO5: To apply the basic grammatical rules learnt from the prescribed text.</li> </ul>
	CO1: To understand the principles and practice of object oriented analysis CO2: Ability to implement basic concepts, compile, test and run

Course Code and Course Name	Course Outcomes
26AGC3 Object Orientented Programming Using Java	Java programs comprising more than one class, to address a particular software problem  CO3: Ability to make use of members of classes found in the Java API packages and interfaces  CO4: Understand the concept of File handling in java  CO5: Demonstrate the ability to employ various types of selection constructs in a Java program.
26AGC4 Fundamentals Of Data Structures	<ul> <li>CO1: Analyze performance of algorithms and choose the appropriate data structure and algorithm design method for a specified application</li> <li>CO2: Demonstrate understanding of the abstract properties of various data structures such as stacks, queues, lists, trees and graphs and Use various data structures effectively in application programs.</li> <li>CO3: Understand and apply fundamental algorithmic problems including Tree traversals, Graph traversals, and shortest paths.</li> <li>CO4: Demonstrate understanding of various sorting algorithms, including bubble sort, insertion sort, selection sort, heap sort and quick sort.</li> <li>CO5: Gain knowledge about Hashing and Collisions and B-Trees</li> </ul>
26AAL2 Probability And Statistics	<ul> <li>CO1: Understand the basic concept of Probability and Conditional probability.</li> <li>CO2: Know the concept of random variables, expectations and moment generating functions.</li> <li>CO3: Know about some standard distributions.</li> <li>CO4: Know about correlation and regression.</li> <li>CO5: Understand the concept of testing of hypothesis</li> </ul>
26ACL2 Object Orientented Programming Using Java Lab	CO1: To understand the Principles of object oriented Programming CO2: Ability to implement to compile, test and run Java programs. CO3: Ability to make use of applet Programming CO4: Understand the concept of Thread handling in java CO5: Get Basic Knowledge on Menu creation in Applets
FCB Human Rights , Constitution Of India , Intellectual Property Rights	CO1: Understand and apply written and oral communication Skills to business.  CO2: Understand and analyze the global legal environment.  CO3: To familiarize the complex problems, find and deploy a variety of legal authorities, and communicate effectively in a variety of settings.  CO4: Understand and Develop skills in business situations.

CO5: Acquire the knowledge about the constitution of India. CO1: Develop and effectively communicate through verbal/oral communication and improve the listening skills. CO2: Develop and actively participate in group discussion / meetings / interviews and prepare & deliver presentations. CO3: Understand and develop effectively in multi-disciplinary and heterogeneous teams through the knowledge of team work. Inter-personal relationships, conflict management and leadership quality. CO4: Understand the individual through goal/target setting, self motivation and practicing creative thinking. CO5: Acquire the knowledge about the correct usage and conversation practice CO1: மக்தி இலக்கியம் வாயிலாக அருதெற்களை உருத்தல். CO2: ந்தி இலக்கியம் வாயிலாக அறுநெற்களை உறுத்தல். CO3: நவிக்களை அறியச் செய்தல். CO4: இலக்கணங்களை அறியச் செய்தல். CO5: குழ்மால் கூடுதிகளை பழ்நியும் அறியச் செய்தல். CO5: குழ்மால் கூடுதிகளைப் பழ்நியும் அறியச் செய்தல். CO1: To identify the concepts of basic Grammar. CO2: To understand the proficiency of the English writer's narrative skill's of their experience. CO3: To express their own notions, in prose, poetry and short story. CO4: To develop an interest for literature and language CO5: To distinguish the development of prose through different periods. CO1: To analyze Data Base Management System design methodology. CO2: Acquire knowledge about data modeling using entity and relation. CO3: Design data base and normalize data and Understand how query are being processed and executed. CO4: Draw various data models for Data Base and Write queries mathematically and understanding of	Course Code and Course	Course Outcomes
SS1 Communicative English  SS2 Co3: Understand the practicing creative thinking. Co4: Understand the individual through goal/target setting, self motivation and practicing creative thinking. Co5: Acquire the knowledge about the correct usage and conversation practice  Co1: பக்தி இலக்கியம் வாயிலாக இலக்கிய, வாழ்வியல் அறிதெக்களை உறுத்தல். Co2: நீதி இலக்கியம் வாயிலாக இலக்கிய, வாழ்வியல் அறிதெக்களை உறுத்தல். Co3: நீதி இலக்கியம் வாயிலாக இலக்கிய, வாழ்வியல் அறிதெக்களை உறுத்தல். Co3: நீதி இலக்கியம் வாயிலாக வாழ்வியல் அறிதெக்களை உறுத்தல். Co3: நீதி இலக்கியம் வாயிலாக வாழ்வியல் அறிதெக்களை உறுத்தல். Co3: நீதிகளை உறுத்த	Name	
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normalization theory and apply such knowledge to the normalization of a database  CO5: Formulate, using SQL, solutions to a broad range of query and data update problems.	<b>Relational Database</b>	methodology.  CO2: Acquire knowledge about data modeling using entity and relation.  CO3: Design data base and normalize data and Understand how query are being processed and executed.  CO4: Draw various data models for Data Base and Write queries mathematically and understanding of normalization theory and apply such knowledge to the normalization of a database  CO5: Formulate, using SQL, solutions to a broad range of query
26ADSC1 CO1: To understand the general concepts of PHP scripting	26ADSC1	
PHP Programming language for the development of Internet websites.		

Course Code and Course	
Name	Course Outcomes
reame	<ul> <li>CO2: Use PHP logical and comparison operators, branching structures (if/switch), and loop structures (for, for each, do, do/while).</li> <li>CO3: Use HTML form elements that work with any server-side language.</li> <li>CO4: Create a PHP web page that is unique to each visitor.</li> <li>CO5: Working with Database and SQL and connect the both ends.</li> <li>CO1: To understand the principles and concepts of accounting system to maintain the business transactions</li> </ul>
26AAL3 Business Accounting	systematically.  CO2: Acquire the conceptual skills to prepare financial statements.  CO3: Learn the various techniques and methods of depreciation followed in the business.  CO4: Understand the role of cost accounting in the complex business environment.  CO5: Understand the costing system and cost management system.
26ACL3 Relational Database Management System	<ul> <li>CO1: Design and implement a database schema for a given problem-domain</li> <li>CO2: Normalize a database</li> <li>CO3: Populate and query a database using SQL DML/DDL commands.</li> <li>CO4: Declare and enforce integrity constraints on a database using a state-of-the-art RDBMS programming PL/SQL</li> <li>CO5: Knowledge about Table Joining and Recursive Functions</li> </ul>
26ASB1 Skill Based 1 : HTML 5 And CSS 3	CO1: Understand the basic concepts of WEB andHTML structure  CO2: Formatting the elements in WebPages  CO3: Create Responsive grids, container withnavigation  CO4: Apply style to the static web page and implementlist and links  CO5: Create Static Web page with Images and tables
General Awareness	<ul> <li>CO1: This course is designed to create social awareness at a preliminary level for students across the board.</li> <li>CO2: To help the students to upgrade their knowledge on current challenges and issues of Indian society.</li> <li>CO3: Understand and acquire the knowledge about the current information around the world.</li> <li>CO4: Understand the multi-cultural diversity of Indian society through its demographic composition.</li> <li>CO5: To understand the different levels of government administration.</li> </ul>

Course Code and Course Name	Course Outcomes
SS2 Mathematical Skills	<ul> <li>CO1: Problem solving techniques for aptitude problems</li> <li>CO2: Prepare themselves for various competitive examinations.</li> <li>CO3: Applications of simple formulae</li> <li>CO4: Acquaintance to shortcut methods</li> <li>CO5: Acquaintance to various elementary concepts</li> </ul>
LanguagE-IV	CO1: சங்க கால மக்களின் வாழ்வியலை அறியச் செய்தல். அற இலக்கியங்கள் வழி ஒழுக்கங்களைக் கற்றல். CO2: நாவல் வழி வெளிப்படும் சமுதாயச் சிந்தனைகளை அறிந்து விழிப்புணர்வைப் பெறுதல். CO3: நவீன கருவிகளை அறியச் செய்தல். CO4: மொழி அறிவை வளர்த்தல், படைப்புத் திறனை வளர்த்தல். CO5: மாணவர்களுக்குத் தன்னம்பிக்கை மற்றும் தலைமைப் பண்பை வளர்த்தல், மாணவர்களை வேலை வாய்ப்புடன் கூடிய போட்டித் தேர்வுகளுக்குத் தயார்ப்படுத்துதல்.
E04 English-IV	<ul> <li>CO1: To understand the narrative style of the renowned prolific writers' personal experiences</li> <li>CO2: To analyse and demonstrate their writing skills.</li> <li>CO3: To cherish the populous works of eminent classical writers.</li> <li>CO4: To develop an ability to write in appropriate genres for a variety of purposes and audience</li> <li>CO5: To be aware of important grammar and confidence in their own voice as a writer</li> </ul>
26ADSC2 Python Programming	<ul> <li>CO1: Describe the Procedural and Object Oriented Paradigm with Concepts of Streams, Classes, Functions, Data and Objects.</li> <li>CO2: Demonstrate Adeptness of Object Oriented Programming in Developing Solutions to Problems Demonstrating Usage of Classes, Objects, Constructors and Destructors.</li> <li>CO3: Apply the Concept of Function Overloading, Operator Overloading and Classify Inheritance with the understanding of Early and Late Binding.</li> <li>CO4: Get familiar with Strings and Functions in Python</li> <li>CO5: Understand the concept of OOP's and File Handling</li> </ul>
26AAL4 Business Accounting Software (TALLY)	<ul> <li>CO1: Enhances the computerized accounting skills.</li> <li>CO2: Ability to interpret the accounting &amp; inventory statements by applying various financial tools.</li> <li>CO3: Acquire knowledge on the preparation of statutory compliance.</li> <li>CO4: Acquaint to prepare bill-wise statement.</li> <li>CO5: Learn to extract financial and inventory reports.</li> </ul>
26ASB2 Skill Based 2 :	CO1: Understand to develop a static & dynamic webpage by the use of HTML tags.

Course Code and Course	Course Outcomes
Name	CO2. Incolor and integrative such as as (a) using HTML CSS and
Web Design With Javascript	<b>CO2:</b> Implement interactive web page(s) using HTML, CSS and
	java script.  CO3: Understand the basic set of HTML terminology,
	techniques, and "tags" while practicing skills that will
	allow them to create and publish original Web pages for a
	variety of uses;.
	CO4: Construct Web pages with text and Web editors
	CO5: Acquire the knowledge about the ASP and its procedures
	CO1: Basics of Python programming
26ACL4	CO2: Decision making and functions in Python
Python Programming	CO3: Function mechanism in Python
Lab	CO4: Object oriented Programming using Python
	CO5: File handling in Python
	CO1: To gain an understanding about barriers of society and
	impact of law to mitigate this issues
	CO2: To make students understand the basic concepts in
	comparative politics.
	<b>CO3:</b> To understand the relationship between patriarchy, power
Women's Rights	and violence.
	<b>CO4:</b> To recognize key women's human rights defenders who
	have made important contribution to furthering the rights
	of women and girls.
	CO5: Demonstrate a working knowledge of feminism and the
	field of Women and Gender Studies.
	<b>CO1:</b> Problem solving techniques for aptitude problems
992	<b>CO2:</b> Prepare themselves for various competitive
SS2	examinations.
Mathematical Skills	CO3: Applications of simple formulae CO4: Acquaintance to shortcut methods
	CO5: Applying the techniques in real life problems
	CO1: Identify and apply the elements of social activities
	CO2: Demonstrate effective use of government schemes and
COC1/COC2/ COC3	projects
Extension Activities	CO3: Investigate visual strengths to promote NCC activities
(NCC / NSS / SPORTS)	<b>CO4:</b> Identify and apply the sustainable use of club activities
( , , , , , , , , , , , , , , , , , , ,	<b>CO5:</b> Create the awareness to people about the environmental
	pollution
	CO1: Understand the operating systems objectives and
	functionality along with system programs and system
26AGC6	calls.
	CO2: Design deadlock, prevention and avoidance algorithms.
Operating System	CO3: Various Scheduling algorithms.
	CO4: Compare and contrast various memory management
	schemes.

Course Code and Course Name	Course Outcomes
	CO5: Design and Implement a prototype file systems.
26ADSC3  Mobile Application  Development Programming	<ul> <li>CO1: Know the basic concepts and technique of developing applications for the Android mobile environment.</li> <li>CO2: Able to use the SDK and other development tools. And the basic concepts of Android phone features and capabilities.</li> <li>CO3: Be able to understand Java programming as it related to application development for the Android platform.</li> <li>CO4: Working with Android Operating System and Mobile Application development Tools</li> <li>CO5: Understand about data base connectivity and accessing fields of database</li> </ul>
26AGE1A Generic Elective – I A. Data Mining And Warehousing	<ul> <li>CO1: Acquire knowledge about Tokens. Control Structures, Decision Making Statements – Loops in C++</li> <li>CO2: Knowledge on Class and Objects, Friend functions, Overloading member functions, and Constructor &amp; Destructors</li> <li>CO3: Acquire knowledge about Operator Overloading, Type conversion, Inheritance, Types of inheritance, Virtual Base classes.</li> <li>CO4: Knowledge on Pointers, Pointer to class and objects, Arrays, Characteristics, Memory models and Virtual Function</li> <li>CO5: Acquire knowledge about Files and Steps of File Operations, Exception Handling, Strings</li> </ul>
26AGE1B Generic Elective – I B. Client / Server Computing	<ul> <li>CO1: Describe and Synthesis concepts of programming for networking, including, multithreading, delegate and event handling, remote files I/O and database connectivity.</li> <li>CO2: Develop Code for basic network and Internet protocols including sockets, stream and packet protocols such as TCP, UDP, HTTP, FTP and SMTP protocols for creating simple two tier client server applications.</li> <li>CO3: Program multi-tier client server computing systems with remote and web services protocols for creating distributed client server systems.</li> <li>CO4: Design and develop specialized client server systems with better security, scalability, queuing, and optimal performance and bandwidth utilization.</li> <li>CO5: Program different network programming tools, network monitoring, tracking and analyzing advanced client server systems.</li> </ul>

<b>Course Code and Course</b>	Course Outcomes
Name	Course Outcomes
26age1c Generic Elective – I C. Industry 4.0	<ul> <li>CO1: Acquire knowledge about Industry 4.0 and for digital transformation</li> <li>CO2: Familiarize and learn the student with the concept of Artificial Intelligence.</li> <li>CO3: To enable the students to understand the Big data and data analytics</li> <li>CO4: Insight into the various methods of applications and tools of Industry 4.0</li> <li>CO5: Students can attain confident and necessary skills to attend their jobs 2030</li> </ul>
26age1d Generic Elective – I D. Software Engineering	<ul> <li>CO1: Plan a software engineering process life cycle, including the specification, design, implementation, and testing of software systems</li> <li>CO2: Evaluate the quality of the requirements, analysis and design work done during the module.</li> <li>CO3: Design and communicate ideas about software system solutions at different levels</li> <li>CO4: Analyze and translate a specification into a design, and then realize that design practically, using an appropriate software engineering methodology.</li> <li>CO5: Know how to develop the code from the design and effectively apply relevant standards and perform testing, and quality management and practice</li> </ul>
26ADSC1A Discipline Specific Elective 1: A. Internet Of Things	<ul> <li>CO1: Explain the definition and usage of the term —Internet of Things in different contexts</li> <li>CO2: Understand the key components that make up an IoT system</li> <li>CO3: Differentiate between the levels of the IoT stack and be familiar with the key technologies and protocols employed at each layer of the stack</li> <li>CO4: Apply the knowledge and skills acquired during the course to build and test a complete, working IoT system involving prototyping, programming and data analysis</li> <li>CO5: Discover where the IoT concept fits within the broader ICT industry and possible future trends</li> </ul>
26ADSC1B Discipline Specific Elective 1: B.Big Data Analytics	<ul> <li>CO1: Outline the basic big data concept.</li> <li>CO2: Categorize and summarize the processing in Big Data and its importance.</li> <li>CO3: Simulate various Big Data technologies like Handoop, MapReduce, R and NO-SQL.</li> <li>CO4: Determine tools and techniques to analyse Big Data.</li> <li>CO5: Resolve problems associated with Big Data with features of R programming.</li> </ul>

Course Code and Course Name	Course Outcomes
26ADSC1C Discipline Specific Elective 1: C.Mobile Ad-Hoc Network	<ul> <li>CO1: To understand the basics of ad hoc &amp; sensor networks</li> <li>CO2: To learn various fundamental and emerging protocol of all layers</li> <li>CO3: To study about the issues pertaining to major obstacles in establishment and efficient management of ad hoc and sensor networks</li> <li>CO4: To understand the nature and applications of ad hoc and sensor networks</li> <li>CO5: To understand various security practices and protocols of ad hoc and sensor networks.</li> </ul>
26ASB3 Skill Based 3: Jquery And Angular JS	<ul> <li>CO1: Demonstrate understanding of javascript and Jquary scripting fundamentals.</li> <li>CO2: Analyze and evaluate website applications for design, efficiency and usability</li> <li>CO3: Utilize the HTML5 canvas element to draw animate, and add interactivity to elements</li> <li>CO4: Get familiar with client side javascript frameworks and Angular framework.</li> <li>CO5: Boost your hire ability through innovative and indecent ermine</li> </ul>
26ACL5 Android Programming Lab	<ul> <li>CO1: Know the basic concepts and technique of developing applications for the Android mobile environment.</li> <li>CO2: Able to use the SDK and other development tools. And the basic concepts of Android phone features and capabilities.</li> <li>CO3: Be able to understand Java programming as it related to application development for the Android platform.</li> <li>CO4: Programs Development under Mobile Environment</li> <li>CO5: Difference between Computer and Mobile Programming</li> </ul>
26ACIR Internship / Field Project Report	<ul> <li>CO1: To Integrate theory with practical.</li> <li>CO2: To give opportunity to students to work with industrial expert.</li> <li>CO3: To introduce students to work culture.</li> <li>CO4: Acquire skills in communication, management team work.</li> <li>CO5: To understand scope, functions and job responsibilities in various departments of an organization.</li> </ul>
SS3 Managerial Skills	<ul> <li>CO1: Develop and effectively communicate through verbal/oral communication and improve the listening skills.</li> <li>CO2: Develop and actively participate in group discussion / meetings / interviews and prepare &amp; deliver presentations.</li> <li>CO3: Understand and develop effectively in multi-disciplinary and heterogeneous teams through the knowledge of team work, Inter-personal relationships, conflict management</li> </ul>

Course Code and Course	
Name	Course Outcomes
	and leadership quality.  CO4: Understand the individual through goal/target setting, self motivation and practicing creative thinking.  CO5: Acquire the knowledge about the reasoning ability and mental attitude.
26AGC7 Computer Networks	<ul> <li>CO1: Understand the concepts of networks, types and architectures.</li> <li>CO2: Apply addressing entities of network with implementation of TCP and UDP protocols.</li> <li>CO3: Identify the networks technologies for error free transmission of data</li> <li>CO4: Apply various routing protocols in data communication to select optimal path.</li> <li>CO5: Develop real time applications of networks</li> </ul>
26ADSC4 R Programming	<ul> <li>CO1: Understand the basic components of visual basic such as data types, arrays and control flow statements</li> <li>CO2: Work with forms, Menu box, List box and Combo box controls</li> <li>CO3: Design forms using Graphics and images</li> <li>CO4: Understand Active x controls and implement programs using them</li> <li>CO5: Understand about data base connectivity and accessing fields of database</li> </ul>
26ADSC5 Web Technology	<ul> <li>CO1: Understand, analyze and apply the role of languages like HTML, DHTML</li> <li>CO2: Understand, analyze and apply the role of languages CSS, XML, Javascript, VBScript, ASP, PHP</li> <li>CO3: Protocols in the workings of the web and web applications</li> <li>CO4: Understand, analyze and create web pages using HTML, DHTML and Cascading Styles sheets</li> <li>CO5: Understand, analyze and build dynamic web pages using JavaScript (client side programming).</li> </ul>
26ADSE2A Discipline Specific Elective 2: A.Cloud Computing	<ul> <li>CO1: Understand core concepts of the cloud computing, the characteristics, advantages and challenges brought about by the various models and services in cloud computing.</li> <li>CO2: Apply the fundamental concepts in data centers to understand the tradeoffs in power, efficiency and cost by Load balancing approach.</li> <li>CO3: Illustrate the fundamental concepts of cloud storage and demonstrate their use in storage systems.</li> <li>CO4: Analyze the billing of resources and understand various managements and how to deal with disasters.</li> <li>CO5: Get familiarize with Local Clouds and Migrating between Clouds.</li> </ul>

Course Code and Course Name	Course Outcomes
26ADSE2B Discipline Specific Elective 2: B. Cryptography And Network Security	<ul> <li>CO1: Understand the concepts of information security.</li> <li>CO2: Apply addressing entities of network with implementation of TCP and UDP protocols.</li> <li>CO3: Identify the networks technologies for error free transmission of data</li> <li>CO4: Apply various routing protocols in data communication to select optimal path.</li> <li>CO5: Well versed with System Security, Malicious Software and Firewalls</li> </ul>
26ADSE2C Discipline Specific Elective 2: C. Introduction To Machine Learning	<ul> <li>CO1: Understanding of the fundamental issues and challenges of machine learning: data, model selection, model complexity, etc.</li> <li>CO2: Understanding of the strengths and weaknesses of many popular machine learning approaches.</li> <li>CO3: Explain about the concepts of computational learning theory and dimensionality Reduction.</li> <li>CO4: Appreciate the underlying mathematical relationships within and across Machine Learning algorithms and the paradigms of supervised and un-supervised learning.</li> </ul>
26AIDE Inter Disiciplinary ELECTIVE: J.Office Automation	<ul> <li>CO1: To understand text formatting.</li> <li>CO2: To understand text editing and manipulations.</li> <li>CO3: To study the concept of Spreadsheet creation</li> <li>CO4: To study the concept of slides preparation and database creation.</li> <li>CO5: To understand the concept of Internet and E-Mail</li> </ul>
26ACL6 R Programming LAB	<ul> <li>CO1: Understand the basics in R programming in terms of constructs, control statements, string functions</li> <li>CO2: Understand the use of R for Big Data analytics</li> <li>CO3: Apply R programming for Text processing</li> <li>CO4: Appreciate and apply the R programming from a statistical perspective</li> </ul>
26ACPV Project & Viva Voce	CO1: Analyze the problem Domain CO2: Find the best Computer Language and implement CO3: Develop a project model and get approval from the user CO4: Develop final software model CO5: Test and Implement the software in the customer site.
SS3 Managerial Skills	<ul> <li>CO1: Develop and effectively communicate through verbal/oral communication and improve the listening skills.</li> <li>CO2: Develop and actively participate in group discussion / meetings / interviews and prepare &amp; deliver presentations.</li> <li>CO3: Understand and develop effectively in multi-disciplinary and heterogeneous teams through the knowledge of team work, Inter-personal relationships, conflict management and leadership quality.</li> </ul>

Course Code and Course Name	Course Outcomes
	<ul><li>CO4: Understand the individual through goal/target setting, self motivation and practicing creative thinking.</li><li>CO5: Acquire the knowledge about the reasoning ability and</li></ul>
	mental attitude.
CLUB ACTIVITIES	CO1: Identify and apply the elements of club activities CO2: Demonstrate effective use of government schemes and projects
	CO3: Investigate visual strengths to promote club activities CO4: Identify and apply the sustainable use of club activities CO5: Create the awareness to the student about club activities