KONGUNADU ARTS AND SCIENCE COLLEGE

(AUTONOMOUS)

COIMBATORE – 641 029.

DEPARTMENT OF INFORMATION TECHNOLOGY

CURRICULUM AND SCHEME OF EXAMINATIONS (CBCS)

(2025 - 2026 onwards)

DEPARTMENT OF INFORMATION TECHNOLOGY

Vision:

- To achieve excellent standards of quality education by keeping pace with rapidly changing technologies.
- To create technical manpower of global standards with capabilities of accepting new challenges in Information Technology.
- Integral Formation and Empowerment of students for social transformation through Information Technology.

Mission:

- To provide outstanding education and training to our graduate students for their productive careers in industry, academia, and government.
- To impart quality and value-based education to raise satisfaction level of all stakeholders.
- To empower students with academic excellence, knowledge and training.
- To enable critical thinking among students towards development in IT withreference to social transformation.
- To apply new developments in Information Management and provide all possible support to promote research & development.
- To serve as a platform whereby the student enrich their personalities to assume greater responsibilities.

PROGRAMME OUTCOMES (PO)

PO1 Enhance the skills and new computing technologies through practical and theoretical knowledge of computer science and software engineering.

PO2 Practice communication, problem solving and decision-making skills through the use of appropriate technology and with the understanding of the business environment.

PO3 Identify, design, and analyze complex computer systems and interpret the results from those systems

PO4 Configure and administer database servers to support contemporary business environments.

PO5 Apply the knowledge of mathematics, science and computing in the core information technologies.

PO6 Analyze the impact of computing on individuals, organizations, and society, including ethical, legal, security, and global policy issues.

PO7 Learn future technologies through acquired foundational skills and knowledge and employ them in new business environments.

PO8 Pursue higher education or practice as computing professionals to contributeto the economic development of the region, state and nation.

PROGRAMME SPECIFIC OUTCOMES (PSO)

PSO1 Apply the knowledge of computing and mathematics appropriate to the discipline.

PSO2 Apply current techniques, skills, and tools necessary for computing practical and to integrate IT-based solutions into the user environment effectively.

PSO3 Use design and development principles in the construction of software systems of varying complexity.

PSO4 An ability to use knowledge in various domains to identify real-world problems and hence to provide solution to new ideas and innovations.

PSO5 Design, document and develop robust applications by considering human, financial and environmental factors using cutting edge technologies to address individual and organizational needs.

KONGUNADU ARTS AND SCIENCE COLLEGE (AUTONOMOUS)

COIMBATORE – 641 029

Programme Name : **B.Sc INFORMATION TECHNOLOGY [B.Sc IT]**

Curriculum and Scheme of Examination under CBCS

(Applicable to the students admitted during the Academic Year 2025-2026)

Semester	Part	Subject Code	Title of the Paper	Instruction hours/ cycle	Exam. Marks			Duration of Exam	Credits
					CIA	ESE	TOTAL		
I	I	25TML101	Language I @	6	25	75	100	3	3
	II	25ENG101	English-I	6	25	75	100	3	3
	III	25UIT101	**Core Paper 1**– Computer Fundamentals and Programming in C	4	25	75	100	3	4
	III	25UIT1CL	**Core Practical 1** – Programming Lab -PC Hardware and Programming in C	4	40	60	100	3	2
	III	25UIT1CM	**Core Practical 2** Office Suits and Designing	2	40	60	100	3	1
	III	25UIT1A1	**Allied Paper 1**- Mathematical Foundations for Computer Science	6	25	75	100	3	5
	IV	25EVS101	Environmental Studies**	2	-	50	50	3	2
	Total			**30**	**-**	**-**	**650**	**-**	**20**
II	I	25TML202	Language II@	6	25	75	100	3	3
	II	25ENG202	English –II	6	25	75	100	3	3
	III	25UIT202	**Core Paper 2** – Data Structures using C++	5	25	75	100	3	4
	III	25UIT2CN	**Core Practical 3**-Programming Lab- Data Structures using C++	5	40	60	100	3	3
	III	25UIT2A2	**Allied Paper 2** – Operations Research	6	25	75	100	3	5
	IV	25VED201	Value Education- Moral and Ethics**	2	-	50	50	3	2
	Total			**30**	**-**	**-**	**550**	**-**	**20**
III	I	25TML303	Language III@	6	25	75	100	3	3
	II	25ENG303	English –III	6	25	75	100	3	3
	III	25UIT303	**Core Paper 3**–Java Programming	4	25	75	100	3	5
	III	25UIT3CO	**Core Practical 4**– Programming Lab - Java	4	40	60	100	3	3
	III	25UIT3A3	**Allied Paper 3**- Digital Fundamentals, Architecture and Microprocessors	6	25	75	100	3	5
	IV	25UGC3S1	**Skill Based Subject 1**-Cyber Security	2	**100**	**-**	**100**	3	3
	IV	25TBT301/ 25TAT301/ 25UHR3N1	**Basic Tamil*/ Advanced Tamil**/Non-Major Elective 1****	2	-	75	75	3	2
	Total			**30**	**-**	**-**	**675**	**-**	**24**

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IV	I	25TML404	Language IV@	6	25	75	100	3	3
	II	25ENG404	English – IV	6	25	75	100	3	3
	III	25UIT404	**Core Paper 4-**.NET and RDBMS	4	25	75	100	3	5
	III	25UIT4CP	**Core Practical 5**-Programming Lab- .NET and RDBMS	4	40	60	100	3	3
	III	25UIT4A4	**Allied Paper 4**- Embedded and Real time systems	6	25	75	100	3	5
	IV	25UIT4SL	Skill Based Subject 2 – R Programming Lab	2	40	60	100	3	3
	IV	25TBT402/ 25TAT402/ 25UWR4N2	**Basic Tamil***/**Advanced Tamil**** / **Non-Major Elective2***	2	-	75	75	3	2
	Total			**30**	**-**	**-**	**675**	**-**	**24**
V	III	25UIT505	**Core Paper 5** – Python Programming	6	25	75	100	3	5
	III	25UIT506	**Core Paper 6**– Operating System	5	25	75	100	3	4
	III	25UIT507	**Core Paper 7 -** Data Communication and Networks	6	25	75	100	3	5
	III	25UIT5CQ	**Core Practical 6**-Programming Lab – Python	6	40	60	100	3	3
	III	25UIT5E1	**Major Elective 1**	5	25	75	100	3	5
	IV		**EDC**	2	**100**	**-**	**100**	3	3
	-	25UIT5IT	Internship Training****	**Grade**					
	Total			**30**	**-**	**-**	**600**	**-**	**25**
VI	III	25UIT608	**Core Paper 8**-Web Technology	6	25	75	100	3	5
	III	25UIT609	**Core Paper 9-** Software Engineering and Testing	6	25	75	100	3	5
	III	25UIT6CR	**Core Practical 7**-Programming Lab- Web Technology and Testing	6	40	60	100	3	3
	III	25UIT6E2	**Major Elective 2**	6	25	75	100	3	5
	III	25UIT6Z1	Project and Viva-Voce***	4 & &	20	80	100	3	5
	III	**25UBI6S3**	**Skill Based Subject 3– Basics of IPR**	2	**100**	**-**	**100**	3	3
	Total			**30**	**-**	**-**	**600**	**-**	**26**
	V	**25NCC $ / NSS / YRC / PYE / ECC / RRC / WEC101#**	**Co curricular Activities***	**-**	**50**	**-**	**50**	**-**	**1**
Grand Total				**-**	**-**	**-**	**3800**	**-**	**140**

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Sub. Code: 25UIT101

Programme Code: 12	**B.Sc. Information Technology**			
Title of the paper: **Core Paper 1 – Computer Fundamentals and Programming in C**				
Batch **2025 – 2028**	Hours / Week **4**	Total Hours **60**	Credits **4**	Skill Development

Course Objectives

1. To enable the students to know about the fundamentals of computer types of software and operating system.
2. To impart adequate knowledge on the need of programming languages and problem-solving techniques.
3. To develop an in-depth understanding of functional and logical concepts of C Programming.
4. To provide exposure to arrays, Structures and Union through C programming.
5. To familiarize with the File Input and Output operation using C Language.

Course Outcomes (CO)

K1 - K5	CO1	Remember various computer Hardware and Software programming constructs.
	CO2	Understand the fundamentals of C programming.
	CO3	Apply the right data representation formats based on arrays, structures and unions.
	CO4	Implementing decision making using branching and looping statement.
	CO5	Execute programs using pointers, structures and files.

Sub. Code: 25UIT1CL

Programme Code: 12	**B.Sc. Information Technology**			
Title of the paper: **Core Practical 1 – Programming Lab -PC Hardware and Programming in C**				
Batch	Hours/Week	Total Hours	Credits	Skill Development
2025 – 2028	**4**	**60**	**2**	

Course Objectives

1. To introduce the different parts of Motherboard, study of ROM and Assembling the PC.
2. To develop an in-depth understanding of functional and logical concepts of C Programming.
3. To enhance the analyzing and problem- solving skills in programming using C features.

Course Outcomes (CO)

K1 to K5	CO1	Understand basic parts of Motherboard and Set-up CMOS and examine about assembling and disassembling the PC system.
	CO2	Apply Arithmetic operator, Conditional operator, logical operator, relational operators and other C constructs for developing programs.
	CO3	Develop C programs using decision making, branching, looping constructs.
	CO4	Develop programs using the Arrays, structures, functions, pointers and Strings
	CO5	Implement files and command line arguments.

Sub. Code: 25UIT1CM

Programme Code: 12	**B.Sc. Information Technology**			
Title of the paper : **Core Practical 2 -** Office Suits and Designing				
Batch	Hours/Week	Total Hours	Credits	Employability
2025 – 2028	**2**	**30**	**1**	

Course Objectives

1. To learn the basics of Microsoft Office Word, Excel, Power Point and MS Access.
2. To gain an insight of Gmail Basics.
3. To gain the Knowledge on Google Applications.
4. To learn the basics of Canva.

Course Outcomes (CO)

K1 to K5	CO1	Recollect the working of Microsoft word and Excel
	CO2	Apply the concepts of Microsoft power point and MS Access
	CO3	To learn the basics of Gmail and its various options available.
	CO4	Design with Google Applications like Google sides, sheets and classroom.
	CO5	Implement Canva Applications exploring their functionalities.

Sub. Code: 25UIT202

Programme Code: 12	**B.Sc. Information Technology**			
Title of the Paper: **Core Paper 2 – Data Structures using C++**				
Batch	Hours/Week	Total Hours	Credits	Skill Development
2025 – 2028	**5**	**75**	**4**	

Course Objectives

1. To develop a greater understanding of concepts of Object-Oriented Programming paradigms.
2. To impart adequate knowledge on the need of object-oriented programming languages.
3. To understand the concepts of Data Structures

Course Outcomes (CO)

K1 to K5	CO1	Remember the characteristics of Object-Oriented Programming Languages.
	CO2	Understand the fundamentals of C++ programming structure, function overloading and constructors.
	CO3	Examine different C++ features such as composition of objects, Operator Overloading, inheritance, files and Exceptions.
	CO4	Analyze the efficiency of Stack, Queue and Lists
	CO5	Evaluate the usage of Sorting, Searching and Tree Techniques.

Sub. Code: 25UIT2CN

Programme Code: 12	**B.Sc. Information Technology**			
Title of the Paper: **Core Practical 3-Programming Lab- Data Structures using C++**				
Batch	Hours/Week	Total Hours	Credits	Skill Development
2025 – 2028	**5**	**75**	**3**	

Course Objectives

1. To develop programs to understand and apply Object oriented features and OOPs concepts in C++.
2. To apply the concept of polymorphism and inheritance.
3. To enhance problem solving and programming skills in C++ by implementing the Concepts of Data Structures.

Course Outcomes (CO)

K3 to K5	CO1	Implement the concepts of object-oriented programming.
	CO2	Apply string functions to perform operator overloading.
	CO3	Analyze virtual functions and inheritance.
	CO4	Design and implement Stack and Queue operations in C++
	CO5	Evaluate the implementation of Data structure sorting and searching operations.

Sub. Code: 25UIT303

Programme Code: 12	**B.Sc. Information Technology**			
Title of the Paper: **Core Paper 3–Java Programming**				
Batch	Hours/Week	Total Hours	Credits	Employability
2025 – 2028	**4**	**60**	**5**	

Course Objectives

1. To learn the basic features of Java Programming.
2. To gain the knowledge about the concepts of Packages, Inheritance, Interfaces and Multithreading.
3. To develop the ability to create and run java programs using Applets, AWT, Swing and Connectivity.

Course Outcomes (CO)

K1 - K5	CO1	Remember the keywords, data types and Control Structures in Java.
	CO2	Understand the concept of Creating Classes, Functions and Objects.
	CO3	Apply the concepts of Packages, Inheritance, Exception Handling and Applet.
	CO4	Analyze the concepts of Files and AWT Controls.
	CO5	Evaluate the usage of Swings and JDBC in Java Applications

Sub. Code: 25UIT3CO

Programme Code: 12	**B.Sc. Information Technology**			
Title of the Paper: **Core Practical 4– Programming Lab - Java**				
Batch	Hours/Week	Total Hours	Credits	Employability
2025 – 2028	**4**	**60**	**3**	

Course Objectives

1. To develop the ability to build web-based applications using applets and AWT.
2. To implement the concept of event handling.
3. To apply the concepts of Multithreading, Inheritance and Packages, Swing and Connectivity.

Course Outcomes (CO)

K3 to K5	CO1	Recollect the concepts of control structures, inheritance in Java
	CO2	Implement the concept of interface, packages, multithreading, applets.
	CO3	Apply event handling mechanisms and AWT Controls.
	CO4	Develop the programs using file concept and swings.
	CO5	Access database through Java programs, using Java Data Base Connectivity (JDBC)

Sub. Code: 25UIT3A3

Programme Code: 12	**B.Sc. Information Technology**			
Title of the Paper: **Allied Paper 3 – Digital Fundamentals, Architecture and Microprocessors**				
Batch	Hours/Week	Total Hours	Credits	Skill Development
2025 – 2028	**6**	**90**	**5**	

Course Objectives

1. To know the different types of Number System
2. To gain knowledge about Digital Arithmetic and Logic Circuits.
3. To understand about the Combination circuit and Input Output Organization.
4. To understand various types of Microprocessor Architecture.
5. To Analyze the Parallel and serial Interfacing.

Course Outcomes (CO)

K1 - K5	CO1	Understand the basics of digital systems and computing
	CO2	Apply the basics in digital circuits
	CO3	Develop the various electronic circuits.
	CO4	Understand the architecture and functionalities of 8085 Microprocessor.
	CO5	Demonstrate an application or a working environment with Parallel and Serial Interfacing.

Sub. Code: 25UIT404

Programme Code: 12	**B.Sc. Information Technology**			
Title of the Paper: **Core Paper 5 - .NET and RDBMS**				
Batch	Hours / Week	Total Hours	Credits	Employability
2025– 2026	**4**	**60**	**5**	

Course Objectives

1. To understand the .Net Framework components.
2. To integrate variables and functions in developing .Net applications.
3. To learn the basic concepts of Database.
4. To understand the concepts of DDL, DML and PL/SQL .

Course Outcomes (CO)

K1 - K5	CO1	Understand the properties and methods of the various tools.
	CO2	Apply the concept of .NET in developing windows applications.
	CO3	Understand and construct database using Structured Query Language (SQL) in Oracle9i environment.
	CO4	Remembering the concept of Database.
	CO5	Learn basics of PL/SQL and develop programs using Triggers, Exceptions, Procedures and Functions.

Sub. Code: 25UIT4CP

Programme Code: 12	**B.Sc. Information Technology**			
Title of the Paper: **Core Practical 5 – Programming Lab – .NET and RDBMS**				
Batch	Hours/Week	Total Hours	Credits	Employability
2025 – 2028	**4**	**60**	**3**	

Course Objectives

1. To become familiar with the tools and operations of VB.Net
2. To get a simple understanding of windows- based programming.
3. To design and build database systems and demonstrate their competence.
4. To gain knowledge in developing real time applications.

Course Outcomes (CO)

K3 to K5	CO1	Design and develop the event- driven applications using .NET Framework.
	CO2	Understand the concepts of .NET and Learn the advantages of Controls in .NET
	CO3	Understand and construct database using Structured Query Language (SQL) in Oracle9i environment.
	CO4	Remembering the concept of Database.
	CO5	Learn basics of PL/SQL and develop programs using Cursors, Exceptions, Procedures and Function

Sub. Code: 25UIT4A4

Programme Code: 12	**B.Sc. Information Technology**			
Title of the Paper: **Allied Paper 4 – Embedded and Real time systems**				
Batch	Hours/Week	Total Hours	Credits	Skill Development
2025 – 2028	**6**	**90**	**5**	

Course Objectives

1. To teach the architecture and instruction set of different Microprocessors.
2. To learn the architecture of ARM, and embedded programs.
3. To understand the architectures of Real Time systems.

Course Outcomes (CO)

K1 to K5	CO1	Remember the Embedded system design process and ARM Processor.
	CO2	Understand the Bus-Based Computer Systems.
	CO3	Study about software performance optimization
	CO4	Analyze the Processes of Real time Operating Systems and multiprocessors.
	CO5	Evaluate the usage of networks and design techniques.

Sub. Code: 25UIT505

Programme Code: 12	**B.Sc. Information Technology**			
Title of the Paper: **Core Paper 5 – Python Programming**				
Batch	Hours/Week	Total Hours	Credits	Employability
2025 – 2028	**6**	**90**	**5**	

Course Objectives

1. To acquire programming skills in core Python and to learn and understand Python
2. To Learn core Python scripting elements such as variables and flow control structures
3. To gain an insight of developing dynamic webpage by using CSS and DHTML.
4. To use Python data structures, lists, tuples, dictionaries.
5. To Learn Basics of Numpy and Pandas.

Course Outcomes (CO)

K1 to K5	CO1	Develop algorithmic solutions to simple computational problems and Read write, execute by hand simple Python programs.
	CO2	Structure simple Python programs for solving problems.
	CO3	Represent compound data using Python lists, tuples, dictionaries and Sets.
	CO4	Read and write data from/to files in Python Programs
	CO5	Introduction to Numpy and Pandas.

Sub. Code: 25UIT506

Programme Code: 12	**B.Sc. Information Technology**			
Title of the Paper: **Core Paper 6 – Operating System**				
Batch	Hours/Week	Total Hours	Credits	Skill Development
2025 – 2028	**5**	**75**	**4**	

Course Objectives

1. To impart adequate knowledge on the Operating Systems.
2. To develop an in-depth understanding Process and memory management.
3. To familiarize with the basic difference between Deadlocks and Disk management.
4. To provide exposure to Linux and Windows.

Course Outcomes (CO)

K1 to K5	CO1	Understand the fundamentals of computer operating system.
	CO2	Remember various Process Management programming constructs
	CO3	Apply the right Memory Management representation formats.
	CO4	Implement the Disk Management concepts.
	CO5	Discussion about Linux and Windows

Sub. Code: 25UIT507

Programme Code: 12	**B.Sc. Information Technology**			
Title of the Paper: **Core Paper 7 - Data Communication and Networks**				
Batch	Hours/Week	Total Hours	Credits	Employability
2025 – 2028	**6**	**90**	**5**	

Course Objectives

1. To learn about Protocol Standards, Transmission methods, Digital Signals.
2. To Understand about Mode of Data Transmission, Transmission Media.
3. To understand a basic knowledge of Network Topologies and Routing Algorithms.
4. To know the outline of ISDN Architecture and Network Layers.
5. Analyze the Problem in internetworking, TCP and UDP.

Course Outcomes (CO)

K1 to K5	CO1	Remember the basic of Data communication and Networks.
	CO2	Understanding the knowledge of mode of Data Transmission, Multiplexing Techniques and Transmission Media.
	CO3	Apply the concept of routing algorithms.
	CO4	Analyzing about ISDN, MAC and Internetworking Devices.
	CO5	Evaluate the applications and usage of TCP / IP and UDP Formats.

Sub. Code: 25UIT5CQ

Programme Code: 12	**B.Sc. Information Technology**			
Title of the Paper: **Core Practical 6 – Programming Lab – Python Programming**				
Batch	Hours/Week	Total Hours	Credits	Employability
2025 – 2028	**6**	**90**	**3**	

Course Objectives

1. To gain knowledge about the concepts of python programming.
2. To understand the concepts of Built-in functions and User-defined functions.
3. To develop programs using String functions.

Course Outcomes (CO)

K3 to K5	CO1	Apply different types of operators in programming.
	CO2	Implement the concepts of built-in functions in programming.
	CO3	Analyze the use control structures in programming.
	CO4	Appling the concept of List, Tuple, Set and Dictionary.
	CO5	To Learn the Libraries Numpy and Pandas.

Sub. Code: 25UIT608

Programme Code: 12	**B.Sc. Information Technology**			
Title of the Paper: **Core Paper 8-Web Technology**				
Batch	Hours/Week	Total Hours	Credits	Entrepreneurship
2025 – 2028	**6**	**90**	**5**	

Course Objectives

1. To acquire the knowledge about web programming and scripting languages.
2. To learn the basic concepts of webpage design using HTML.
3. To gain an insight of developing dynamic webpage by using CSS and DHTML.
4. To develop the ability to create a well-formed and Valid XML documents.
5. To enhance the skills to create and deploy the web applications.

Course Outcomes (CO)

K1 to K5	CO1	Remember the concepts of HTML for designing web pages.
	CO2	Understand the concepts of DHTML and CSS to create dynamic web pages.
	CO3	Apply PHP and Ajax for developing real time web applications.
	CO4	Analyze and validate the web pages by using Java script.
	CO5	Evaluate the Applications and usage of static and dynamic web pages.

Sub. Code: 25UIT609

Programme Code: 12	**B.Sc. Information Technology**			
Title of the Paper: **Core Paper 9- Software Engineering and Testing**				
Batch	Hours/Week	Total Hours	Credits	Employability
2025 – 2028	**6**	**90**	**5**	

Course Objectives

1. To assist the students in understanding the basic theory of software engineering.
2. To teach about various testing and debugging techniques.
3. To gain knowledge about quality control and to develop good quality software.

Course Outcomes (CO)

K1 to K5	CO1	Remember the fundamentals of software engineering concepts.
	CO2	Understand common life cycle processes such as waterfall model, spiral model, prototyping model and evolutionary models.
	CO3	Apply the principles and techniques of software engineering in the architectural design, detail design, and implementation of software applications.
	CO4	Analyze the developed software using different testing concepts.
	CO5	Evaluate the usage of Reengineering and Reverse Engineering.

Sub. Code: 25UIT6CR

Programme Code: 12	**B.Sc. Information Technology**			
Title of the Paper: **Core Practical 7**-Programming Lab- **Web Development and Testing**				
Batch	Hours / Week	Total Hours	Credits	Entrepreneurship
2025 – 2028	**6**	**90**	**3**	

Course Objectives

1. To develop the ability to build web applications using various technologies like HTML,CSS, PHP and Ajax and construct the test cases.
2. To create dynamic web pages and validate it using Java script.
3. To design and implement real time applications by applying the concepts of PHP and Ajax.
4. To learn about the concepts of assert, verification, wait commands.

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Course Outcomes (CO)

K3 to K5	CO1	Recollect the concept of designing web pages using HTML and validate it using Java script.
	CO2	Understand the concepts of CSS and DHTML to create dynamic web pages and implement the concepts of assert and verify
	CO3	Develop the webpage using the concepts of PHP and Ajax.
	CO4	Create web pages using XHTML and Cascading Style Sheets and apply essential characteristics of tool for test automation
	CO5	Build dynamic web pages using JavaScript and evaluate different strategies for Generating system test cases

Sub. Code: 25UIT6Z1

Programme Code: 12	**B.Sc. Information Technology**			
Title of the Pape*r: **Project and Viva-Voce *****				
Batch	Hours/Week	Total Hours	Credits	Employability
2025 – 2028	**4**	**60**	**5**	

Course Objectives

On successful completion of all the above courses

1. To get the knowledge about selecting the task based on their course skills.
2. To get the knowledge about analytical skill for solving the selected task.
3. To gain confidence for implementing the task.
4. To gain confidence for solving the real time problems.

Course Outcomes (CO)

K3 to K5	CO1	Apply the programming skill for solving the project.
	CO2	Analyze the task to collect the necessary information about the system.
	CO3	Evaluating the project based on the software.
	CO4	Apply testing techniques to test the different modules of the project.
	CO5	Implement the Project in the user environment.

Programme Code: 12	**B.Sc. Information Technology**			
Title of the Paper: **Elective – Internet of Things**				
Batch	Hours/Week	Total Hours	Credits	Entrepreneurship
2025 – 2028	**5 / 6**	**75 / 90**	**5**	

Course Objectives

1. To learn the concepts of IOT and its protocols.
2. To learn how to analysis the data in IOT.
3. To analyze the industrial needs.
4. To learn IOT infrastructure for popular applications.

Course Outcomes (CO)

K1 to K5	CO1	Analyzing and evaluate the data received through sensors in IOT.
	CO2	Design and develop smart city in IoT
	CO3	Analyze various communication protocols for IoT.
	CO4	Analyze applications of IoT in real time scenario
	CO5	Evaluate appropriate protocol for communication between IoT.

Programme Code: 12	**B.Sc. Information Technology**			
Title of the paper : **Elective–Mobile Computing**				
Batch **2025 – 2028**	Hours/Week **5 / 6**	Total Hours **75 / 90**	Credits **5**	Entrepreneurship

Course Objectives

1. To explain fundamental of mobile computing.
2. To discuss a comprehensive understanding of TCP/IP protocols
3. To outline current and emerging trends in Telecommunication systems.
4. To analyze energy management in ad-hoc wireless networks.
5. To understand about the operating systems used in mobile platforms.

Course Outcomes (CO)

K1 to K5	CO1	Understand the several communication access techniques and determine the functionality of MAC.
	CO2	Perceive knowledge about TCP and IP method
	CO3	Illustrate technical format, addressing and transmission strategies of packets
	CO4	Apply and Identifying a routing protocol for given Adhoc Networks Evaluate
	CO5	Understanding the platforms and mobile operating system techniques

Programme Code: 12	**B.Sc. Information Technology**			
Title of the Paper: **Elective – Cloud Computing**				
Batch **2025 – 2028**	Hours/Week **5 / 6**	Total Hours **75 / 90**	Credits **5**	Entrepreneurship

Course Objectives

1. To teach the basics of cloud computing.
2. To understand the broad perspective of cloud architecture
3. To gain the knowledge of cloud services and cloud security.

Course Outcomes (CO)

K1 to K5	CO1	Identify the architecture and infrastructure of cloud computing, including SaaS,PaaS, IaaS, public cloud, private cloud, hybrid cloud.
	CO2	Understand the core issues of cloud computing such as security, privacy, and interoperability.
	CO3	Apply the appropriate technologies and approaches for the related issues.
	CO4	Analyze the appropriate cloud computing solutions and recommendations according to the applications used.
	CO5	Evaluate the Risk, Security and data loss prevention in cloud.

Programme Code: 12	**B.Sc. Information Technology**			
Title of the Paper: **Elective - Data Mining**				
Batch	Hours/Week	Total Hours	Credits	Employability
2025 – 2028	**5 / 6**	**75 / 90**	**5**	

Course Objectives

1. To introduce the basic concepts of Data Mining algorithms, methods and tools.
2. To develop and apply critical thinking, problem-solving, and decision-making skills.
3. To discover interesting patterns, analyze supervised and unsupervised models and Estimate the accuracy of the algorithms.

Course Outcomes (CO)

K1 to K5	CO1	Remembering the data mining principles and techniques.
	CO2	Understanding the concept of raw data processing using data mining algorithms.
	CO3	Applying data mining algorithms to build analytical applications.
	CO4	Analyzing large amount of data to extract patterns and to solve problems.
	CO5	Evaluate the performance of various algorithms by comparing different approaches.

Programme Code: 12	**B.Sc. Information Technology**			
Title of the Paper: **Elective – Artificial Intelligence**				
Batch	Hours/Week	Total Hours	Credits	Employability
2025 – 2028	**5 / 6**	**75 / 90**	**5**	

Course Objectives

1. To understand the basic concepts of Artificial Intelligence (AI) and identify the AI problems and domains.
2. To provide search techniques to solve the problems.
3. To represent and access the domain specific knowledge.

Course Outcomes (CO)

K1 to K5	CO1	Remember the techniques of Artificial Intelligence in Problem Solving.
	CO2	Understand the nature of AI problems and task domains of AI.
	CO3	Apply the appropriate search procedures to solve the problems by using best algorithms.
	CO4	Analyze and select the suitable knowledge representation method.
	CO5	Evaluate the techniques of representing knowledge using rules.

UIT -21

Programme Code: 12	**B.Sc. Information Technology**			
Title of the Paper: Elective – **Big Data Analytics**				
Batch **2024 – 2025**	Hours/Week **5 / 6**	Total Hours **75 / 90**	Credits **5**	Entrepreneurship

Course Objectives

1. To learn the basic concepts of Big Data and its technologies.
2. To learn about NoSQL and Big data Management
3. To gain knowledge about Hadoop and HDFS.
4. To learn about web mining, graph mining and social network mining.

Course Outcomes (CO)

K1 to K5	CO1	Remember big data and use cases from selected business domains
	CO2	Understand NoSQL big data management
	CO3	Apply map-reduce analytics using Hadoop.
	CO4	Analyze Graph Mining, Web Mining and Social Network Mining.
	CO5	Evaluate the usage of web mining in social networks.

UIT -22

Course Objectives

Programme Code: 12	B.Sc. Information Technology			
Title of the Paper: **Elective – Machine Learning**				
Batch	Hours/Week	Total Hours	Credits	Employability
2025 – 2028	**5 / 6**	**75 / 90**	**5**	

1. To understand pattern classification algorithms to classify multivariate data
2. To understand the Implementation of genetic algorithms
3. To gain knowledge about Q-Learning
4. To create new machine learning techniques.

Course Outcomes (CO)

K1 to K5	CO1	Develop and apply pattern classification algorithms to classify multivariate data.
	CO2	Understand and apply regression algorithms for finding relationships between data variables.
	CO3	Apply reinforcement learning algorithms for learning to control complex systems.
	CO4	Analyze and select the suitable methods for Decision Tree Algorithm
	CO5	Evaluate the scientific reports on computational machine learning methods, results and conclusions.

Programme Code: 12	**B.Sc. Information Technology**			
Title of the paper : **Elective–Network Security**				
Batch	Hours/Week	Total Hours	Credits	Employability
2025 – 2028	**5 / 6**	**75 / 90**	**5**	

Course Objectives

1. To Understand OSI security architecture.
2. To Understand various block cipher and stream cipher models.
3. To Study the principles of symmetric & public key crypto systems.
4. To learn the system security practices.

Course Outcomes (CO)

K1 to K5	CO1	Remember the OSI Security Architecture.
	CO2	Understanding Number theory and finite fields.
	CO3	Apply Block Ciphers and Data Encryption Standard.
	CO4	Evaluate Public Key Cryptography and RSA.
	CO5	Implement Hash functions.

UIT -24

Sub. Code: 25UGC3S1

Programme Code: 12	**B.Sc. Information Technology**			
Title of the Paper: **Skill Based Subject 1 – Cyber Security**				
Batch	Hours/Week	Total Hours	Credits	**Skill Development**
2025 – 2028	**2**	**30**	**3**	

Course Objectives

1. The course introduces the basic concepts of Cyber Security.
2. To develop an ability to understand about various modes of Cyber Crimes and Preventive measures.
3. To understand about the Cyber Legal laws and Punishments.

Course Outcomes (CO)

K1 - K5	CO1	To Understand the Concepts of Cybercrime and Cyber Frauds
	CO2	To Know about Cyber Terrorism and its preventive measures
	CO3	To Analyze about the Internet, Mobile Phone and E-commerce security issues
	CO4	To Understand about E-mail and Social Media Issues
	CO5	To Describe about various legal responses to Cybercrime

Programme Code: 12	B.Sc. Information Technology			
Title of the Paper: **Skill Based Subject 2 – R Programming Lab**				
Batch	Hours/Week	Total Hours	Credits	Skill Development
2025 – 2028	**2**	**30**	**3**	

Course Objectives

- To acquire programming skills in core R Programming
- To acquire Object-oriented programming skills in R Programming.
- To develop the skill of designing graphical-user interfaces (GUI) in R Programming

Course Outcomes (CO)

K3 to K5	CO1	Familiarize with the constructs and running of R programs
	CO2	Apply control structures of R for several suitable problems
	CO3	Demonstrate the working of various data structures supported by R
	CO4	Understand the role of R in data handling and visualization
	CO5	Recognize the type of problem and solve it using R

UIT -26 **Sub. Code: 25UBI6S3**

Programme Code: 12	**B.Sc. Information Technology**			
Title of the Paper: **Skill Based Subject 3 – Basics of Intellectual Property Right's**				
Batch	Hours/Week	Total Hours	Credits	Skill Development
2025 – 2028	**2**	**30**	**3**	

Course Objectives

- To create awareness about recent trends in IPR and Innovation
- To explore the basic concepts IPR
- To focus upon trademarks, copyrights, patents, industrial designs and traditional knowledge.
- To learn more about managing IP rights and legal aspects.

Course Outcomes (CO)

On successful completion of the course, the students will be able to

K1 ↑	CO1	Know about basic concepts of IPR and patent
	CO2	Understand copyrights, industrial designs and geographical indication of goods.
	CO3	Differentiate between trademarks and trade secrets
	CO4	Acquire knowledge on protection of traditional knowledge and plant varieties.
↓ K5	CO5	Manage and protect IP Rights

UIT -27

Programme Code: 12	**B.Sc. Information Technology**			
Title of the Paper: **Extra Departmental Course (EDC) – Advanced Excel Lab**				
Batch **2025 – 2028**	Hours /Week **2**	Total Hours **30**	Credits **3**	Employability

Sub. Code: 25UIT5XL

Course Objectives

1. To include advanced functions in Excel.
2. To understand the concepts of Range, Pivot Chart and Mathematical Functions in Excel.
3. To introduce the basic concepts of Data Validation and Data Sorting.

Course Outcomes (CO)

K3 to K5	CO1	Apply Mathematical and Logical Functions.
	CO2	Analyze the use of Range Function.
	CO3	Implement the spreadsheet using Excel Tools.
	CO4	Apply Statistical and Reference functions.
	CO5	Create a Chart for the Table data.

UIT -28

Sub. Code: 25EVS101

Programme Code: 12	**B.Sc. Information Technology**			
Title of the Paper: **Part – IV - Environmental Studies**				
Batch	Hours/Week	Total Hours	Credits	Skill Development
2025 – 2028	**2**	**30**	**2**	

Course Objectives

1. The course will provide students with an understanding and appreciation of the complex interactions of man, health and the environment. It will expose students to the multi-disciplinary nature of environmental health sciences.

2. To inculcate knowledge and create awareness about ecological and environmental concepts, issues and solutions to environmental problems.

3. To shape students into good "Eco citizens" thereby catering to global environmental needs.

4. This course is designed to study about the types of pollutants including gases, chemicals petroleum, noise, light, global warming and radiation as well as pollutant flow and recycling and principles of environmental pollution such as air, water and soil.

5. The course will address environmental stress and pollution, their sources in natural and workplace environments, their modes of transport and transformation, their ecological and public health effects, and existing methods for environmental disease prevention and remediation.

Course Outcomes

On successful completion of the course, the students will be able to

K1 ↕ K5	CO1	Understand how interactions between organisms and their environments drive the dynamics of individuals, populations, communities and ecosystems
	CO2	Develop an in-depth knowledge on the interdisciplinary relationship of cultural, ethical and social aspects of global environmental issues
	CO3	Acquiring values and attitudes towards complex environmental socio-economic challenges and providing participatory role in solving current environmental problems and preventing the future ones
	CO4	To gain inherent knowledge on basic concepts of biodiversity in an ecological context and about the current threats of biodiversity
	CO5	To appraise the major concepts and terminology in the field of environmental pollutants, its interconnections and direct damage to the wildlife, in addition to human communities and ecosystems

UIT -29

Programme Code: 12	**B.Sc. Information Technology**			
Title of the Paper: **Value Education – Moral and Ethics**				
Batch **2025 – 2028**	Hours/Week **2**	Total Hours **30**	Credits **2**	Skill Development

Sub. Code: 25VED201

Course Objectives

1. To impart Value Education in every walk of life.
2. To help the students to reach excellence and reap success.
3. To impart the right attitude by practicing self-introspection.
4. To portray the life and messages of Great Leaders.
5. To insist the need for universal brotherhood, patience and tolerance.
6. To help the students to keep them fit.
7. To educate the importance of Yoga and Meditation.

Course Outcomes (CO)

After completing the course, the students will be able to:

K1 to K5	CO1	Will be able to recognize Moral values, Ethics, contribution of leaders, Yoga and its practice.
	CO2	Will be able to differentiate and relate the day to day applications of Yoga and Ethics in real life situations.
	CO3	Can emulate the principled life of great warriors and take it forward as a message to self and the society.
	CO4	Will be able to Analyse the Practical outcome of practicing Moral values in real life situation.
	CO5	Could Evaluate and Rank the outcome of the pragmatic approach to further develop the skills.

Sub. Code: 25UHR3N1

UIT -30

Course Objectives

Programme Code: 12	**B.Sc. Information Technology**			
Title of the Paper: **Part IV - Non - Major Elective 1 - Human Rights**				
Batch	Hours/Week	Total Hours	Credits	Skill Development
2025 – 2028	**2**	**30**	**2**	

1. To prepare for responsible citizenship with awareness of the relationship between Human Rights, democracy and development.
2. To impart education on national and international regime on Human Rights.
3. To sensitive students to human suffering and promotion of human life with dignity.
4. To develop skills on human rights advocacy
5. To appreciate the relationship between rights and duties
6. To foster respect for tolerance and compassion for all living creature.

Course Outcomes (CO)

K1 to K5	CO1	To understand the hidden truth of Human Rights by studying various provisions in the Constitution of India.
	CO2	To acquire overall knowledge regarding the Feminist perspectives in the Liberative Empowerment of Women.
	CO3	To gain knowledge about various gender roles and stereotypes involved in the comprehension of gender equality and women's rights.
	CO4	To comprehend the legal provisions and policies that foreground the safety of children in the society and to promote awareness.
	CO5	To gain enhanced knowledge about sexual and gender minorities to recognize, celebrate and acknowledge the diversified forms of gender expressions and rights.

Sub. Code: 25UWR4N2

UIT -31

Programme Code: 12	**B.Sc. Information Technology**			
Title of the Paper: **Part IV- Non- Major Elective 2 - Women's Rights****				
Batch	Hours/Week	Total Hours	Credits	Skill Development
2025 – 2028	**2**	**30**	**2**	

Course Objectives

1. To know about the laws enacted to protect women against violence.
2. To impart awareness about the hurdles faced by women.
3. To develop a knowledge about the status of all forms of women to access to justice.
4. To create awareness about women's rights.
5. To know about laws and norms pertaining to protection of women.
6. To understand the articles which enables the women's rights.
7. To understand the Special Women Welfare laws.
8. To realize how the violence against women puts an undue burden on healthcare services.

Course Outcomes (CO)

After Completion of the Course the student will be able to

K1 to K5	CO1	Appraise the importance of Women's Studies and incorporate Women's Studies with other fields
	CO2	Analyze the realities of Women Empowerment, Portrayal of Women in Media, Development and Communication
	CO3	Interpret the laws pertaining to violence against Women and legal consequences
	CO4	Contribute to the study of the important elements in the Indian Constitution, Indian Laws for Protection of Women
	CO5	Spell out and implement Government Developmental schemes for women and create awareness on modernization and impact of technology on Women

UIT -32

Programme Code: 12	**B.Sc. Information Technology**			
Title of the Paper: **Part IV- Non- Major Elective 3 – Consumer Affairs**				
Batch **2025 – 2028**	Hours/Week **2**	Total Hours **30**	Credits **2**	**Skill Development**

Course Objectives

1. To familiarize the students with their rights and responsibilities as a consumer.
2. To understand the procedure of redress of consumer complaints.
3. To know more about decisions on Leading Cases by Consumer Protection Act.
4. To get more knowledge about Organizational set-up under the Consumer Protection Act.
5. To impart awareness about the Role of Industry Regulators in Consumer Protection.
6. To understand Contemporary Issues in Consumer Affairs.

Course Outcomes (CO)

K1 to K5	CO1	Able to know the rights and responsibility of consumers.
	CO2	Understand the importance and benefits of Consumer Protection Act.
	CO3	Applying the role of different agencies in establishing product and service standards.
	CO4	Analyse to handle the business firms' interface with consumers.
	CO5	Assess Quality and Standardization of consumer affairs

Sub. Code: 25UHW401

UIT -33

Programme Code: 12	**B.Sc. Information Technology**			
Title of the Paper: **Part IV- Non- Major Elective 4 - Health and Wellness**				
Batch **2025 – 2028**	Hours/Week **2**	Total Hours **30**	Credits **2**	**Skill Development**

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Certificate Programme
on
Technical Writing

UIT -35

KONGUNADU ARTS AND SCIENCE COLLEGE

(AUTONOMOUS)

COIMBATORE – 641 029

DEPARTMENT OF INFORMATION TECHNOLOGY (UG)

Certificate Programme
on
Technical Writing

CURRICULUM AND SCHEME OF EXAMINATIONS

(2025 - 2026 onwards)

UIT -36
DEPARTMENT OF INFORMATION TECHNOLOGY

Vision:

- To achieve excellent standards of quality education by keeping pace with rapidly changing technologies.
- To create technical manpower of global standards with capabilities of accepting new challenges in Information Technology.
- Integral Formation and Empowerment of students for social transformation through Information Technology.

Mission:

- To provide outstanding education and training to our graduate students for their productive careers in industry, academia, and government.
- To impart quality and value-based education to raise the satisfaction level of all stakeholders.
- To empower students with academic excellence, knowledge and training.
- To enable critical thinking among students towards development in IT with reference to social transformation.
- To apply new developments in Information Management and provide all possible support to promote research & development.
- To serve as a platform whereby the student enrich their personalities to assume greater responsibilities.

PROGRAMME OUTCOME (PO)

PO1 To emphasise the importance of Technical in writing

PO2 To train students in specified types of creative writing

PO3 To develop various real time writing skills using latest technologies

PO4 To understand the concept of knowledge representation and transform the real-life information into different representations.

PO5 To bring out students originality in writing

UIT -37

PROGRAMME SPECIFIC OUTCOME (PSO)

On successful completion of this programme you will have knowledge and understanding of:

PSO1 An ability to apply scientific and technical principles in technical writing

PSO2 An ability to explore the distinctive features of creativity

PSO3 An ability to apply and independently write within academic institutions

PSO4 An ability to be generative to release fresh energy and to influence mind

PSO5 Use different techniques to reflect the writing methodology with creativity

UIT -38

KONGUNADU ARTS AND SCIENCE COLLEGE [Autonomous]

COIMBATORE - 641 029.

CERTIFICATE PROGRAMME IN TECHNICAL WRITING (Six Months)

CURRICULUM & SCHEME OF EXAMINATION

[APPLICABLE TO THE STUDENTS ADMITTED DURING THE ACADEMIC YEAR 2025-2026 & ONWARDS]

Semester	Subject code	Title of the Paper	Instruction Hours / Cycle	Exam. Marks			Duration of Exam (hrs)	Credits
				CIA	ESE	Total		
	25CTW101	**Core Paper 1** – Introduction to Technical Writing	3	25	75	100	3	2
	25CTW102	**Core Paper 2** – Social Media Content Writing	3	25	75	100	3	2
	25CTW103	**Core Paper 3** – Foundation of Creative Writing	3	25	75	100	3	2
	25CTW1CL	**Core Practical 1 –** Authoring tools Lab	3	40	60	100	3	2
		Total	12	-	-	400	-	8

Part-wise Total Marks:

SUBJECT	MARKS	TOTAL CREDITS
Core Theory	300	6
Core Practical	100	2

CIA – Continuous Internal Assessment

ESE - End of Semester Examination

50% CIA is applicable to all subjects for both Theory and Practical.

UIT -39

Components of Continuous Internal Assessment (50 Marks)

Components		Marks	Total
Theory			
CIA I	75	(75+75) Converted to 15	25
CIA II	75		
Assignment/Seminar		5	
Attendance		5	
Practical			
CIA Practical		25	40
Observation Notebook		10	
Attendance		5	

* Class Participation, Case Studies Presentation, Field Work, Field Survey, Group Discussion, Term Paper, Workshop/Conference Participation. Presentation of Papers in Conferences, Quiz, Report/Content writing. Etc.

****** Two Assignments to be given. (Each 5 marks).

BLOOM'S TAXONOMY BASED ASSESSMENT PATTERN

K1-Remembering; **K2**-Understanding; **K3**-Applying; **K4**-Analyzing; **K5**-Evaluating

1. Theory Examination:

(i) CIA I & II and ESE: 75 Marks

Knowledge Level	Section	Marks	Description	Total
K1 Q1 to 10	A (Answer all)	10 x 1 = 10	MCQ	75
K1 – K5 Q11 to 15	B (Either or pattern)	5 x 5 = 25	Short Answers	
K2 – K5 Q16 to 20	C (Either or pattern)	5 x 8 = 40	Descriptive / Detailed	

****For ESE 50 marks converted to 25 marks.**

2. ESE Practical Examination:

Knowledge Level	Section	Marks	Total
K3	Experiments	50	60
K4	Record Work	10	
K5			

Sub. Code: 25CTW101

Programme Code: 12	**CERTIFICATE PROGRAMME ON TECHNICAL WRITING**		
Title of the Paper: Core Paper 1 – Introduction To Technical Writing			
Batch	Hours / Week	Total Hours	Credits
2025-2026	**3**	**45**	**2**

Course Objectives

1. To teach technical writing concepts.
2. To learn the Principles of technical writing.
3. To understand the development process in technical writing.

Course Outcomes (CO)

K1 to K5	**CO1**	Remember the basis of technical writing.
	CO2	Understand about Roles and responsibilities of writers.
	CO3	Apply the Stages of Technical writing.
	CO4	Analyze the use of Technical Reports, project proposals etc.
	CO5	Evaluate and assess the writing process .

UIT -42

Sub. Code: 25CTW102

Programme Code: 12	**CERTIFICATE PROGRAMME ON TECHNICAL WRITING**		
Title of the Paper: Core Paper 2 – Social Media Content Writing			
Batch	Hours / Week	Total Hours	Credits
2025-2026	**3**	**45**	**2**

Course Objectives

1. To teach the writing process.
2. To learn the basics of media writing.
3. To understand the about ABCD Media writing and journalism.

Course Outcomes (CO)

K1 to K5	**CO1**	Remembering the basis of writing process.
	CO2	Understand about Media Writing.
	CO3	Applying Grammar and Vocabulary.
	CO4	Analyzing the use of New Media and Journalism.
	CO5	Evaluate and assess the Writing for Web.

Sub. Code: 25CTW103

UIT -43

Programme Code: 12	**CERTIFICATE PROGRAMME IN TECHNICAL WRITING**		
Title of the Paper: Core Paper 3 – Foundation Of Creative Writing			
Batch	**Hours / Week**	**Total Hours**	**Credits**
2025-2026	**3**	**45**	**2**

Course Objectives

1. To teach the features of Interpreting Pictures.
2. To learn the Tools and Techniques.
3. To understand Writing Advertisements.

Course Outcomes (CO)

K1 to K5	**CO1**	Remembering the Features of creativity.
	CO2	Understand Various Dialog Writing.
	CO3	Developing Imagination.
	CO4	Analyzing the use of Advertisements for business .
	CO5	Evaluate and assess the Writing for Media.

UIT -44

Sub. Code: 25CTW1CL

Programme Code: 12	**CERTIFICATE PROGRAMME ON TECHNICAL WRITING**		
Title of the Paper: Core Practical 1 – Authoring Tools Lab			
Batch	Hours / Week	Total Hours	Credits
2025-2026	**3**	**45**	**2**

Course Objectives

1. To teach the various on line software tools for creating web page.
2. To learn the techniques of content management.
3. To understand creation of Advertisements and other Web contents.

Course Outcomes (CO)

K1 to K5	**CO1**	Remembering the Features of creativity.
	CO2	Understanding Various Drawing and Writing tools.
	CO3	Developing Imagination.
	CO4	Analyzing the use of Advertisements for business.
	CO5	Evaluating and assessing the media potential.

Job Oriented Course

UIT -46

Title of the Paper: **JOC – 1- Mobile Application Development Lab**		
Hours / Week **2**	Total Hours **30**	Credits **2**

Course Objectives

1. To Understand the Mobile Development Landscape.
2. To Learn Mobile Development Frameworks and Languages.
3. Design User-Friendly Interfaces.
4. Develop Functional Mobile Applications
5. Test and Debug Mobile Apps and Understand App Deployment.

Title of the Paper: **JOC – 2 - Quantitative Aptitude**		
Hours / Week **2**	Total Hours **30**	Credits **2**

Course Objectives

1. Understand about Master Fundamental Mathematical Concepts
2. To Develop Analytical and Logical Thinking.
3. Understand about Data Interpretation and Analysis, Master Time, Work, and Speed Problems
4. Solve the Probability and Permutation/Combination Problems.
5. Improve Speed and Accuracy in Solving Problems

Title of the Paper: **JOC –3 - Linux Lab**		
Hours / Week **2**	Total Hours **30**	Credits **2**

Course Objectives

1. Describe the architecture and features of Linux Operating System
2. To create programs in the Linux environment using Linux utilities and commands.
3. Student is given an introduction of Linux shell commands and they will be able to write own shell scripts.
4. Shell programming is dealt in depth which can be used to develop applications.

UIT -47

Title of the Paper: **JOC – 4 - Network Security and Management Lab**		
Hours / Week **2**	Total Hours **30**	Credits **2**

Course Objective

1. To enable the students to learn security attacks, policies and guidelines.
2. To learn and apply the data encryption methods in network security.
3. To understand the intrusion detection systems.
4. To understand the concept of security management, email and internet banking security policies.