



Prahladrai Dalmia Lions College of Commerce & Economics

Sunder Nagar, Malad (West), Mumbai, 400 064

ISO 9001:2015

Bachelor of Science Information Technology

BSC.IT

Programme Outcomes

PO 1:	Develop the skill to analyze computing problems and to apply principles of computing and other relevant disciplines to identify and select appropriate solutions.
PO 2:	Design and develop individual and group projects on various platforms by doing in depth research.
PO 3:	Recognize and appreciate the importance of the technology and its application in environmental and social contexts
PO 4:	Understand and remember the methods to communicate effectively in both verbal and writing form in industry.
PO 5:	Understand, analyze and develop computer programs in the areas related to algorithms, system software, multimedia, web design, artificial intelligence and networking for efficient design of computer based systems of varying complexity.
PO 6:	Design, evaluate and analyze detailed specifications of algorithms, procedures, functional behavior.

DI/O-PO/TPL/02


IC - PRINCIPAL
PRAHLADRAI DALMIA LIONS COLLEGE OF
COMMERCE AND ECONOMICS
SUNDER NAGAR, MALAD (W),
MUMBAI - 400 064





COURSE OUTCOME

NAME OF THE PROGRAMME: F.Y.B.SC.I.T. – SEMESTER I

The learner should be able to:

Sr. No.	Course Name	Course Outcome
1.	Computational Logic and Discrete Structures	CO 1:Use logical notation CO 2:Perform logical proofs CO3:Apply recursive functions and solve recurrence relations CO4:Use graphs and trees Co 5Apply basic and advanced principles of counting CO6:Define sets and Relations CO7:Calculate discrete probabilities
2.	Digital Logic and Applications.	CO 1: Construct basic and universal logic circuits. CO 2: Verify the functionalities of various IC’s. CO 3: Design circuits using K-maps minimization technique CO 4: Design and test Encoders, Decoders, Multiplexers and Demultiplexer CO 5: Design and develop logic for Registers, Counters and its applications
3.	Fundamentals of Database Management Systems	CO1: Define and describe the fundamental elements of relational database management systems. CO 2: To relate the basic concepts of relational data model, entity-relationship model, relational database design, relational algebra and SQL. CO 3: Design ER-models to represent simple database application scenarios. CO 4: Transform the ER-model to relational tables, populate relational databases and formulate SQL queries on data. CO 5: Improve the database design by normalization. CO 6: Understand basic database storage structures and access techniques: file and page organizations, indexing methods and hashing.



Prahladrao Dalmia Lions College of Commerce & Economics
Sunder Nagar, Malad (West), Mumbai, 400 064

ISO 9001:2015

4.	Programming Principles with C	CO 1: Learn the basic principles of programming. CO 2: Develop logic using algorithms and flowchart. CO 3: Acquire the information about data types. CO 4: Understanding of input and output functions. CO 5: Enhance advanced concepts using programs.
5.	Technical Communication Skills	CO 1: Use different forms of digital mediums for effective communication. CO 2: Create technical documents and format existing documents for effective communication. CO 3: Learn to use graphical tools for better visualization. CO 4: Create business presentations effectively. CO 5: Visualize the data from pictorial representations.

DI/O-PO/TPL/02

Signature
MC - PRINCIPAL
PRAHLADRAO DALMIA LIONS COLLEGE OF
COMMERCE AND ECONOMICS
SUNDER NAGAR, MALAD (W),
MUMBAI - 400 064





Prahladrai Dalmia Lions College of Commerce & Economics
Sunder Nagar, Malad (West), Mumbai, 400 064

ISO 9001:2015

COURSE OUTCOME

NAME OF THE PROGRAMME: S.Y.B.SC.I.T. – SEMESTER III

The learner should be able to:

Sr. No.	Course Name	Course Outcome
1.	Applied Mathematics	CO 1: Solve the matrix operations, identify the linear dependence and independence of a vector. CO 2: Familiar with the various forms and operations of a complex number. CO 3: Find the Laplace transform of a function and Inverse Laplace transform of a function using definition also solve ordinary differential equations using Laplace transform. CO 4: Evaluate the multiple integrals in Cartesian, Polar coordinates, change the order of the integral. CO 5: Apply integration methods to calculate the areas and volumes of solids. CO 6: Evaluate the Beta, Gamma, Differentiation Under integral sign and error functions
2.	Computer Networks	CO1: Identify various data communication standards, topologies and terminologies CO2: Describe how signals are used to transfer data and communication aspects between nodes CO3: Configure IP addresses using TCP/IP protocol suite CO4: Use different application layer protocols
3.	Data Structures	CO1: Identify and distinguish data structure classification, data types, their complexities CO2: Implement array, linked list, stack and queue. CO3: Implement trees, various hashing techniques and graph for various applications CO4: Compare various sorting and searching techniques
4.	Operating Systems	CO1: Role of Operating System Computer System. CO2: Use the different types of Operating System and their services. CO3: configure process scheduling algorithms and synchronization techniques to achieve better performance of a computer system.

DI/O-PO/TPL/02

Signature
MC - PRINCIPAL
PRAHLADRAI DALMIA LIONS COLLEGE OF
COMMERCE AND ECONOMICS
SUNDER NAGAR, MALAD (W),
MUMBAI - 400 064





Prahladrai Dalmia Lions College of Commerce & Economics
Sunder Nagar, Malad (West), Mumbai, 400 064

ISO 9001:2015

		CO4: Apply virtual memory concepts. CO5: Effectively use and manage secondary memory.
5.	Python Programming	CO1: Aware of the variables, expressions, looping and conditions used in Python programming. CO2: Implement functions, strings, lists, tuples and directories CO3: Create GUI forms and add widgets. CO4: Use MySQL to store data. CO5: Apply the programming skills learnt here into various domains by having an advanced programming skill set of Python and usage of libraries.

DI/O-PO/TPL/02

Signature
VC - PRINCIPAL
PRAHLADRAI DALMIA LIONS COLLEGE OF
COMMERCE AND ECONOMICS
SUNDER NAGAR, MALAD (W),
MUMBAI - 400 064





Prahladrai Dalmia Lions College of Commerce & Economics

Sunder Nagar, Malad (West), Mumbai, 400 064

ISO 9001:2015

NAME OF THE PROGRAMME: T.Y.B.SC.I.T. – SEMESTER V

The learner should be able to:

Sr. No.	Course Name	Course Outcome
1.	Artificial Intelligence	CO 1: Demonstrate knowledge of the building blocks of AI as presented in terms of intelligent agents. CO 2: Analyze and formalize the problem as a state space, graph, design heuristics and select amongst different search or game based techniques to solve them. CO 3: Design good evaluation functions and strategies for game playing CO 4: Understand the fundamentals of knowledge representation (logic-based, frame based, semantic nets), inference and theorem proving. Know how to build simple knowledge-based systems. CO 5: Describe and implement several of the major approaches to classical planning, including planning graphs, POP, and propositionalization
2.	Advanced Web Programming	CO1: Students will be able to create console applications using the basic concepts, expressions, various conditional statements and loops of C#. CO2: To use and implement ASP.NET from Fundamentals to design webworms. CO3: Students will be able to learn and implement the concepts of exception handling & State management. CO4: Students will be able to implement database drivers, and design web applications using ADO.NET. CO5: To develop web applications using XML & AJAX.
3.	Enterprise Java	CO1: Java EE and Java Servlets CO2: Request Dispatcher, Cookies, Sessions and File I/O CO3: Java Server Page, Expression Language and JSP Standard Tag Library. CO4: Enterprise Java Beans and Java Naming and Directory Interface.
4.	Internet of Things	CO1: Understand the basic concepts of designing IOT devices and Internet CO2: Understand how prototype can be created and electronic components required for creating the prototype CO3: Understand prototyping the physical device and program on the device using online programming components and protocols CO4: Know the various techniques for writing embedded program and different business models

DI/O-PO/TPL/02

Signature
MC - PRINCIPAL
PRAHLADRAI DALMIA LIONS COLLEGE OF
COMMERCE AND ECONOMICS
SUNDER NAGAR, MALAD (W),
MUMBAI - 400 064





Prahladrai Dalmia Lions College of Commerce & Economics
Sunder Nagar, Malad (West), Mumbai, 400 064

ISO 9001:2015

5	Software Project Management	<p>CO1: To realize Project Management life cycle. To understand the various steps in Programme Management and Project Planning.</p> <p>CO2: To calculate the Software Effort Estimation.</p> <p>CO3: To do Project Planning and Risk assessment</p> <p>CO4: To think and analyze how Monitoring and Control can be implemented for various software projects.</p> <p>CO5: To realize the importance of Working in Teams.</p>
---	-----------------------------	--

DI/O-PO/TPL/02

Signature
VC - PRINCIPAL
PRAHLADRAI DALMIA LIONS COLLEGE OF
COMMERCE AND ECONOMICS
SUNDER NAGAR, MALAD (W),
MUMBAI - 400 064





Prahladrai Dalmia Lions College of Commerce & Economics

Sunder Nagar, Malad (West), Mumbai, 400 064

ISO 9001:2015

COURSE OUTCOME

NAME OF THE PROGRAMME: F.Y.B.SC.I.T. – SEMESTER II

The learner should be able to:

Sr.No.	Course Name	Course Outcome
1.	Object Oriented Programming with C++	CO1. Understand the concept of OOPs, a feature of C++ language. CO2. Understand and apply various types of Data Types, Operators, and Conversions while designing the program. CO3. Understand and apply the concepts of Classes & Objects, friend function, constructors & destructors in program design. CO4. Design & implement various forms of inheritance, String class, calling base class constructors. CO5. Apply & Analyze operator overloading, runtime polymorphism, Generic Programming. CO6. Analyze and explore various Stream classes, I/O operations and exception handling.
2.	Fundamentals of Microprocessor and Microcontrollers	CO1: Understand the basic concepts of Micro Computer Systems CO2. Understand the architecture and hardware aspects of 8085 CO3. Write assembly language programs in 8085 CO4. Design elementary aspects of Micro Controller based systems CO5. Interfacing peripherals using Microcontroller
3.	Web Applications Development	CO1: Analyze the working of the Internet. CO2: Gain an insight into designing web pages. CO3: Use different ways of styling web pages using CSS. CO4: Implement basic and complex functionalities of JavaScript in a web page. CO5: Employ PHP Scripts to execute dynamic tasks in a web page. CO6: Perform various database tasks using PHP.
4.	Numerical Methods	CO1: Understand numerical techniques to find the roots of nonlinear equations and solution of system of linear equations. CO2: Understand the difference operators and the use of interpolation.

DI/O-PO/TPL/02

Signature
MC - PRINCIPAL
PRAHLADRAI DALMIA LIONS COLLEGE OF
COMMERCE AND ECONOMICS
SUNDER NAGAR, MALAD (W),
MUMBAI - 400 064





Prahladrai Dalmia Lions College of Commerce & Economics
Sunder Nagar, Malad (West), Mumbai, 400 064

ISO 9001:2015

		CO3: Understand numerical differentiation and integration and numerical solutions of ordinary and partial differential equations.
5.	Green IT	CO1: Understand the concept of Green IT and problems related to it. CO2: Know different standards for Green IT. CO3: Understand how power usage can be minimized in Technology. CO4: Learn about how the way of work is changing. CO5: Understand the concept of recycling. CO6: Know how information systems can stay Green Information systems.

DI/O-PO/TPL/02

Signature
VC - PRINCIPAL
PRAHLADRAI DALMIA LIONS COLLEGE OF
COMMERCE AND ECONOMICS
SUNDER NAGAR, MALAD (W),
MUMBAI - 400 064





Prahladrai Dalmia Lions College of Commerce & Economics

Sunder Nagar, Malad (West), Mumbai, 400 064

ISO 9001:2015

NAME OF THE PROGRAMME: S.Y.B.SC.I.T. – SEMESTER IV

The learner should be able to:

Sr.No	Course Name	Course Outcome
1.	Java Programming	CO1: Learn the architecture of Java CO2: Identify data types, control flow, classes, inheritance, exceptions and event handling CO3: Use object-oriented concepts for problem solving real-life applications CO4: Build GUI programs CO5 : Create event driven programs using java.
2.	Introduction to Embedded Systems	CO1: Differentiate between general purpose and embedded systems CO2: Discuss the characteristics and quality attributes of embedded systems CO3: Use different types of sensors for appropriately CO4: Design and develop embedded systems
3.	Computer Oriented Statistical Techniques	CO 1: To calculate and apply measures of central tendencies and measures of dispersion --grouped and ungrouped data cases. CO 2: To calculate the moments, skewness and kurtosis by various methods. CO 3: How to apply discrete and continuous probability distributions to various business problems. CO 4: Perform Test of Hypothesis as well as calculate confidence interval for a population parameter for single sample and two sample cases. Understand the concept of p-values CO 5: Apply simple linear regression and correlation model to real life examples.
4.	Software Engineering	CO1: Understand software engineering CO2: Apply software engineering principles CO3: Discuss various approaches to verification and validation of software including testing, measurements and estimation of software products CO4: Create software using different software development models

DI/O-PO/TPL/02

Signature
MC - PRINCIPAL
PRAHLADRAI DALMIA LIONS COLLEGE OF
COMMERCE AND ECONOMICS
SUNDER NAGAR, MALAD (W),
MUMBAI - 400 064





Prahladrai Dalmia Lions College of Commerce & Economics
Sunder Nagar, Malad (West), Mumbai, 400 064

ISO 9001:2015

5.	Computer Graphics and Animation	<p>CO 1. Understand the basics of computer graphics, different graphics systems and applications of computer graphics</p> <p>CO 2. Compare various algorithms for scan conversion and filling of basic objects</p> <p>CO 3. Use of geometric transformations on graphics objects and their application in composite form.</p> <p>CO 4. Extract scene with different clipping methods and its transformation to graphics display device.</p> <p>CO 5. Explore projections and visible surface detection techniques for display of 3D scenes on 2D screen.</p>
----	---------------------------------	--

DI/O-PO/TPL/02

Signature
VC - PRINCIPAL
PRAHLADRAI DALMIA LIONS COLLEGE OF
COMMERCE AND ECONOMICS
SUNDER NAGAR, MALAD (W),
MUMBAI - 400 064





Prahladrai Dalmia Lions College of Commerce & Economics

Sunder Nagar, Malad (West), Mumbai, 400 064

ISO 9001:2015 Certified

NAME OF THE PROGRAMME: T.Y.B.SC.I.T. – SEMESTER VI

The learner should be able to:

Sr. No.	Course Name	Course Outcome
1.	Business Intelligence	CO1: To understand active forms of support for decision making based on the systematic adoption of mathematical models. CO2: To understand applications of data mining and business intelligence in the fields like relational marketing, and models like Salesforce planning. CO3: To understand knowledge management and its different activities. CO4: To create the phases of a data mining process and their objectives and the activities of data preparation. CO5: To develop models using classification and clustering methods
2.	Principles of GIS	CO1: Real world and its representation of it using GIS CO2: Understanding and managing data and Processing Systems CO3: Analyzing Spatial Referencing and Positioning CO4: Analyzing Spatial data CO5: Implementing Maps CO6: Constructing and analyzing maps based on a particular area.
3.	Security In Computing	CO1: Introduction and basic design principles of security and its Models CO2: Symmetric Key Cryptography, Storage Security and Database Security CO3: Designing Secure Networks using the connecting devices – Switches and Routers CO4: Intrusion Detection and Prevention Systems, Operating System Security Models CO5: Concept of Virtual Machine and Cloud Computing, Designing Secure Web Applications.
4.	Software Quality Assurance	CO1: To understand the importance of Software Quality CO2: To understand the fundamentals of testing CO3: To compare different types of testing CO4: To analyze Software verification and Validation and V-Test model CO5: To compare different levels of testing and various special tests

DI/O-PO/TPL/02

Signature
MC - PRINCIPAL
PRAHLADRAI DALMIA LIONS COLLEGE OF
COMMERCE AND ECONOMICS
SUNDER NAGAR, MALAD (W),
MUMBAI - 400 064





Prahladrai Dalmia Lions College of Commerce & Economics
Sunder Nagar, Malad (West), Mumbai, 400 064
ISO 9001:2015 Certified


MC - PRINCIPAL
PRAHLADRAI DALMIA LIONS COLLEGE OF
COMMERCE AND ECONOMICS
SUNDER NAGAR, MALAD (W),
MUMBAI - 400 064

