

M.L.Dhanukar College of Commerce
Teaching Plan: 2018 - 19

Department: **Information Technology**

Semester: III

Class: **S.Y.B.Sc.I.T.**

Subject: **Python Programming**

Name of the Faculty: **Archana Talekar**

Month	Topics to be Covered	Internal Assessment	Number of Lectures
June	Unit I <ul style="list-style-type: none"> • Introduction • Variables and Expressions • Conditional Statements • Looping 		10
July	Unit I <ul style="list-style-type: none"> • Control statements Unit II <ul style="list-style-type: none"> • Functions: Function Calls, Math Functions, Functions Definitions and Uses, Parameters and Arguments, Return Values, Boolean Functions • Strings: Sequence, Traversal with for Loop, String Slices, Searching, Looping, Counting, String Methods, Comparison, Operations Unit III <ul style="list-style-type: none"> • Lists • Tuples and Dictionaries 		24
August	Unit III <ul style="list-style-type: none"> • Files • Exceptions Unit IV <ul style="list-style-type: none"> • Regular Expressions • Classes and Objects • Multithreaded Programming • Modules 		18
September	Unit V <ul style="list-style-type: none"> • Creating the GUI Form and Adding Widgets • Layout Management • Look and Feel Customization: • Storing Data in Our MySQL Database via Our GUI 	Class Test	12

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M.L. Dahanukar College of Commerce

Teaching Plan: 2018 - 19

Department: I.T.

Class: S.Y.B.Sc.(I.T.)

Semester:III

Subject: Data Structure

Name of the Faculty: Prof. Aruta a. Jayswal

Month	Topics to be Covered	Internal Assessment	Number of Lectures
June	Unit 1- Chapter 1-Introduction to Data Structure Chapter 2- Arrays	Class test	12
July	Unit 2- Chapter 1- Linked List		12
August	Unit 3- Chapter 1-Stack Chapter 2-Queue		12
September	Unit 4- Chapter 1-Sorting and Searching Technique Chapter 2-Tree Chapter 3- Advanced Tree Structure		12
October	Unit 5- Chapter 1-Hashing Techniques Chapter 2-Graph		12

Practicals- 2-3 Programs in each practical session.

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Teaching Plan: 2018 - 19

Department: I.T.

Class: S.Y.B.Sc.(I.T.)

Semester:III

Subject: Computer Networks

Name of the Faculty: Amit Bane

Month	Topics to be Covered	Internal Assessment	Number of Lectures
June	1.Data communications, networks, network types, Internet history,standards and administration. 2.Protocol layering, TCP/IP protocol suite, The OSI model. 3.Data and signals, periodic analog signals, digital signals, transmission impairment, data rate limits, performance. 4.Digital-to-digital conversion, analog-to-digital conversion, transmission modes, digital-to-analog conversion, analog-to-analog conversion.		12
July	1.Multiplexing, Spread Spectrum 2.Guided Media, Unguided Media 3.Introduction, circuit switched networks, packet switching, structure of a switch. 4.Link layer addressing, Data Link Layer Design Issues, Error detection and correction, block coding, cyclic codes, checksum, forward error correction, error correcting codes, error detecting codes.		12
August	1.DLC services, data link layer protocols, HDLC, Point-to-point protocol. 2.Random access, controlled access, channelization, Wired LANs – Ethernet Protocol, standard ethernet, fast ethernet, gigabit ethernet, 10 gigabit ethernet, 3.Introduction, IEEE 802.11 project,		12

	Bluetooth, WiMAX, Cellular telephony, Satellite networks.		
September	<p>1. Network layer services, packet switching, network layer performance, IPv4 addressing, forwarding of IP packets, Internet Protocol, ICMPv4, Mobile IP</p> <p>2. Introduction, routing algorithms, unicast routing protocols.</p> <p>3. IPv6 addressing, IPv6 protocol, ICMPv6 protocol, transition from IPv4 to IPv6.</p> <p>4. Introduction, Transport layer protocols (Simple protocol, Stop-and-wait protocol, Go-Back-n protocol, Selective repeat protocol, Bidirectional protocols)</p>	Internal test (20)	12
October	<p>1. Transport layer services, User datagram protocol, Transmission control protocol.</p> <p>2. World wide-web and HTTP, FTP, Electronic mail, Telnet, Secured Shell, Domain name system.</p>		4

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Teaching Plan: 2018 - 19

Department: I.T.

Class: S.Y.B.Sc.(I.T.)

Semester: III

Subject: Database Management Systems

Name of the Faculty: Navneet Kaur Nagpal

Month	Topics to be Covered	Internal Assessment	Number of Lectures
June	What is database system, purpose, applications, advantages, file processing system, types of database users, DBA ,data abstraction, instances and schema, business rules, database architecture, data models		15
July	ER data model, constraints on relationship, types of attributes, ER diagrams, weak entity sets, strong entity sets, generalization, specialization, basic building block, codd's rules, UML, types of database keys, integrity rules, Normalization and types of normal forms, relational database, Relational algebra, operations(select, project, composition, rename, join, division, grouping, set operations), tuple calculus, domain calculus, calculus vs algebra		20
August	DDL, DML, DCL, DQL, integrity constraints, pattern matching test ,views, joins, aggregate functions, null values, subqueries, nested subquery, transaction management, process of transaction, ACID properties, serial transaction, concurrent transaction, problems due to concurrent transaction, states of transaction, serializability, lock based protocol(shared mode and exclusive mode), two phase locking protocol, deadlock, timestamp, deadlock prevention, deadlock detection recovery, database recovery management		20
September	Pl/sql, variable declaration, variable scope, constants, comments, % type attributes,		20

	sequence, control structure(if , if then else, case, loop, while, for, goto), cursors(implicit, explicit), exception handling, package, procedure, function, trigger		
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Teaching Plan: 2018 - 19

Department: I.T.

Class: S.Y.B.Sc.(I.T.)

Semester:III

Subject: DATABASE MANAGEMENT SYSTEM

Name of the Faculty: SUPRITHA BHANDARY

Month	Topics to be Covered	Internal Assessment	Number of Lectures
June	Introduction to database and transactions What is database system, purpose, view of data, relational databases, database architecture Data models: importance, business rules, degree of data abstraction. Database design and ER model: overview,		10
July	ER model, issues, weak entity sets, codd's rule Relational data model Logical view of data, keys, integrity rules, relational database design, atomic domain and normalization. Relational Algebra and calculus Introduction, selection and projection, set operations, joins, tuple relational calculus, Constraints and views: types of constraints		22
August	Data independence, security, aggregate functions, NULL values, triggers. Transaction Management and concurrency: ACID properties, serializability and concurrency control, 2PL, time stamping methods, database recovery management		16
September	PL-SQL: Identifiers and keywords, sequences, control structures, cursors, collections and composite data types, exception handling, procedures, functions, packages	Class Test	12

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Teaching Plan: 2018 - 19

Department: I.T.

Class:S.Y.B.Sc.(I.T.)

Semester:III

Subject:Applied Mathematics

Name of the Faculty:Neha Joshi

Month	Topics to be Covered	Internal Assessment	Number of Lectures
June	Matrices Complex Numbers		10
July	Multiple Integrals Applications of Integrals		15
August	Laplace Transformations Inverse Laplace Tranformations	Class Test	15
September	Differential Equations Differentiation Under The Integral sign		10
October	Beta Gamma Functions Error Functions	Assignments/ Sums solving	10

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