

**HINDUSTHAN COLLEGE OF ARTS AND SCIENCE (AUTONOMOUS)
COIMBATORE-641 028**

**B.Sc INFORMATION TECHNOLOGY
SCHEME OF EXAMINATIONS – CBCS PATTERN**

(For the students admitted from the Academic year 2016 - 2017 and onwards)

CODE NO.	SUBJECT	LECTURE HRS / WEEK	EXAM DURATION (HRS)	MAX.MARKS			CREDIT POINTS
				IE	EE	TOTAL	
First Semester							
Part - I							
16LAT01 / 16LAH01/ 16LAM01/ 16LAF01	Tamil / Hindi / Malayalam / French – I	6	3	25	75	100	3
Part - II							
16ENG01	English - I	6	3	25	75	100	3
Part - III							
16ITU01	Foundations of Information Technology	4	3	25	75	100	3
16ITU02	Digital Fundamentals and Architecture	5	3	25	75	100	4
16ITU03	Programming with C	5	3	25	75	100	4
16ITU04	Practical I : Programming Lab - C	4	3	40	60	100	3
Second Semester							
Part - I							
16LAT02 / 16LAH02 / 16LAM02/ 16LAF02	Tamil / Hindi / Malayalam / French – II	6	3	25	75	100	3
Part – II							
16ENG02	English – II	6	3	25	75	100	3
Part – III							
18ITU05	Data Structures	4	3	25	75	100	3
18ITU06	Programming with C++	4	3	25	75	100	3
16ITU07	Practical II: Programming Lab C++	3	3	40	60	100	3
16ITU08	Allied : Numerical Methods (MAT)	5	3	25	75	100	3
Part - IV							
16GSU01	Value Education - Human Rights	2	-	100	-	100	2
Third Semester							
Part – III							
16ITU09	System Software and Operating System	5	3	25	75	100	4
16ITU10	Java Programming	5	3	25	75	100	4
16ITU11	Computer Networks	5	3	25	75	100	4
16ITU12	Practical III: Programming Lab –Java	5	3	40	60	100	3

16ITU13	Practical IV: Networking Lab	3	3	40	60	100	3
16ITU14	Allied : Mathematical structures (MAT)	5	3	25	75	100	3
	Part - IV						
16GSU02	Environmental Studies	2	-	100	-	100	2
Fourth Semester							
	Part – III						
18ITU15	Visual Basic Programming	5	3	25	75	100	4
18ITU16	Relational Database Management Systems	5	3	25	75	100	4
18ITU17	Software Engineering	5	3	25	75	100	4
18ITU18	Practical V: Programming Lab – Visual Basic	4	3	40	60	100	3
18ITU19	Practical VI: ORACLE Lab	4	3	40	60	100	3
16ITU20	Allied :Business Accounting (COM)	5	3	25	75	100	3
	Part - IV						
16GSU03	Skill Based: Internet Security	2	-	100	-	100	2
	Part - V						
16GSU04	Extension Activity		-	100	-	100	2
Fifth Semester							
	Part – III						
16ITU21	Computer Graphics and Multimedia	6	3	25	75	100	5
16ITU22	.NET Programming	5	3	25	75	100	4
16ITU23	Data Mining and Warehousing	5	3	25	75	100	4
16ITU24	Practical VII: Graphics and Multimedia Lab	4	3	40	60	100	3
16ITU25	Practical VIII: Programming Lab – .NET	4	3	40	60	100	3
16ITU26	Elective - I (a) Information Security (OR) (b) Artificial Intelligence and Expert Systems	6	3	25	75	100	4
	Part - IV						
16GSU05	Non - Major Elective General Awareness		-	100	-	100	2
	Part - V						
16GSU06	Law of Ethics	-		100		100	2
Sixth Semester							
	Part – III						
18ITU27	Software Testing	6	3	25	75	100	5
18ITU28	Open Source Tools	6	3	25	75	100	5
18ITU29	Practical IX: Software Testing & Advanced Network Lab	6	3	40	60	100	5
18ITU30	Practical X: Open Source Lab	6	3	40	60	100	5
16ITU31	Elective - II (a) E-Commerce (OR) (b) Digital Image Processing	6	3	25	75	100	4
16ITU32	Project Work		-	40	60	100	4
							143

Text Book:

Code No.	Subject	Semester No.
18ITU05	DATA STRUCTURES (For the students admitted in the academic year 2018-2019 and onwards)	II
Objective:	This subject provides a practical application using different tools and techniques in Data structure and algorithms.	
Course Outcome	By the end of the course student will understand : <ul style="list-style-type: none"> To improve the logical ability. To design and implementation of various basic advanced data structures. To handle operations like searching, insertion, deletion, traversing mechanism etc. on various data structures. 	
Unit No.	Topics	Hours
Unit I	Introduction Introduction to Algorithm –Arrays and sequential representations – ordered lists – Stacks and Queues – Evaluation of Expressions – Infix , Postfix - Conversions -Singly Linked List – doubly linked list- Polynomial addition	10
Unit II	Trees and Graphs Binary tree representations – Tree Traversal – Threaded Binary Trees –Counting binary trees – Graphs Terminology and Representations – Traversals, Connected Components.	09
Unit III	Spanning trees and Symbol Tables Biconnected components – Hashing - Introduction- Static Hashing- Dynamic Hashing - Symbol tables - Static tree table-Dynamic table.	09
Unit IV	Sorting and Searching Internal sorting - Insertion sort-quick sort-heap sort-Merge sort-two way merge sort-sorting on several keys. External Sorting: Storage device- Magnetic tape – Disk storage - Sorting with disk- K-way merging - Sorting with tape – Searching - Binary search.	10

Text Book:

1. Ellis Horowitz, Sartaj Sahni and Sanguthevar, "Fundamentals of Data Structure", Galgotia Publications .

Reference Books:

1. Horowitz, Sahni, Anderson-freed, "Fundamentals of Data structures in C", Second edition, 2008.
2. Ellis Horowitz, Sartaj Sahni and Sanguthevar Rajasekaran, "Fundamentals of Computer Algorithms", Galgotia Publications, 2001.
3. Narashimha Karumanchi, "Data Structures and Algorithms Made Easy", CareerMonk Publications, Second Edition.

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Code No.	Subject	Semester No.
18ITU06	PROGRAMMING WITH C++ (For the students admitted in the academic year 2018-2019 and onwards)	II
Objective:	This course provides in-depth coverage of Object Oriented Programming principles and techniques using C++. Topics include Classes, Overloading, Data Abstraction, Information Hiding, Encapsulation, Inheritance and Polymorphism, File Processing, Templates and Exceptions.	
Course Outcome	<ul style="list-style-type: none"> To understand the concepts of Object oriented Programming and looping Statements. To Understand the merits of Functions, Constructor and Destructor To understand the Operator overloading and how to apply the major object-oriented concepts to implement object oriented programs in C++, encapsulation, inheritance and polymorphism. Describe the concept of Pointers, Arrays, virtual functions and polymorphism. Understand the concepts of Files which help them in the development of their skills 	
Unit No.	Topics	Hours
Unit I	Introduction to C++: Introduction to C++ - Key concepts of Object-Oriented Programming –Advantages– I/O in C++ - C++ Declarations. Control Structures: Decision Making and Statements: If. Else, jump, go to, break, continue and Switch case statements - Loops in C++: For, While, Do - Functions in C++ - Inline functions.	15
Unit II	Classes, Objects and Constructor, Destructor: Classes and Objects: Declaring Objects – Defining Member Functions – Static Member variables and functions – Array of objects –Friend functions – Bit fields and classes – Constructor and Destructor with static members.	15
Unit III	Operator Overloading and Types of Inheritance: Operator Overloading: Overloading unary, binary operators – Type conversion. Inheritance: Types of Inheritance – Single, Multilevel, Multiple, Hierarchical, Hybrid, Multi path inheritance – Virtual base Classes – Abstract Classes.	14
Unit IV	Array and Pointers: Pointers – Declaration – Pointer to Class , Object – this pointer – Pointers to derived classes and Base classes – Arrays – Characteristics – Array of classes – Memory models – New and Delete operators – Dynamic object – Binding , Polymorphism and Virtual function.	14
Unit V	Files: Files – File stream classes – File modes – Sequential Read / Write operations – Random Access Operation – Exception Handling – String-Declaring and Initializing string objects – String Attributes – Miscellaneous functions.	14

Text Book:

1. Ashok N Kamthane , "C++ PROGRAMMING" Pearson Education publication, 2013.

Reference Books:

1. Balagurusamy, E. "Object-Oriented Programming with C++", Tata McGraw-Hill Publications. 4th Edition, 2009.
2. Maria Litvin & Gray Litvin, "C++ for you" Vikas publication, 2nd Edition, 2003.
3. B.J Arnestroustrup "C++ programming language" Publication, Addison-wesle.

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18ITU15	VISUAL BASIC PROGRAMMING (For the students admitted in the academic year 2017-2018 and onwards)	IV
Objective:	To understand the Visual Basic event-driven programming concepts, terminology, and available tools and learn to design and develop Windows-based business applications.	
Unit No.	TOPICS	Hours
Unit 1	Introducing Visual Basic: Visual Basic- Events and Event Procedures- Object Related Concepts-The Visual Basic Program Development Process- Logical Program Organization- Visual Basic Program Components- The Visual Basic Environment- Opening an Existing Visual Basic Projects- Saving and Running a Visual Basic Project. Visual Basic Fundamentals: Numeric Constants- String Constants- Variables- Data Types and Data Declarations- Operators and Expressions- Hierarchy of Operations-Inserting Parentheses- Special Rules Concerning Numeric Expressions-String Expressions- Assigning Values to Variables- Displaying Output	15
Unit 2	Branching and Looping: Relational Operators and Logical Expressions- Logical Operators- Branching with The If-Then Block- Branching with If-Then-Else Blocks- Selection: Select Case- Looping with For-Next- Looping with Do-Loop. Visual Basic Control Fundamentals: Visual Basic Control Tools- Working with Controls- Naming Forms and Controls- Assigning Property Values To Forms and Controls- Executing Commands - Displaying Output Data - Entering Input Data - Selecting Multiple Features - Selecting Exclusive Alternatives - Selecting From a List - Assigning Properties Collectively- Generating Error Messages- Creating Timed Events - Scroll Bars.	15
Unit 3	Menus and Dialog Boxes Building Drop-Down Menus-Accessing a Menu from the Keyboard- Menu Enhancements- Submenus- Pop-Up Menus- Dialog Boxes- More About the MsgBox Function. Executing and Debugging a New Project : The Input box Function—Syntactic Errors- Logical Errors- Setting Breakpoints-Defining Watch Values- Stepping Through a Program.	15
Unit 4	Procedures Modules and Procedures- Sub Procedures- Event Procedures- Function Procedures- Scope -Optional Arguments. Arrays: Array Characteristics- Array Declarations-Processing Array Elements- Passing Array To Procedures- Dynamic Arrays- Array-Related Functions- Control Arrays- Looping with For Each-Next.	15
Unit 5	Data Files Data File Characteristics- Accessing and Saving a File in Visual Basic: The Common Dialog Control- Processing a Data File- Sequential Data Files - Random Access Data Files- Binary Files – Overview of OLE - Using the Data Control – Methods and events for the data control.	15

Text Book:

1. Byron S. Gottfried- "Visual Basic"- Schaum Outline Series- TMH
2. Gary Cornell "Visual Basic 6 " – McGraw Hill Education (India) Private Limited, New Delhi.

Reference Books:

1. Julia Case Bradley & Anita C. Millspaugh, "Programming in Visual Basic 6.0" by McGraw-Hill.
2. Eric A. Smith- Valor Whisher- Hank Marquis- "Visual Basic 6 Programming Bible".
3. Rod Stephens- "Visual Basic 2012 Programmer's Reference", Paperback – 26 Sep 2012.

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Code No.	Subject	Semester No.
18ITU16	RELATIONAL DATABASE MANAGEMENT SYSTEM (For the students admitted in the academic year 2017-2018 and onwards)	IV
Objective	To lay a Strong Foundation in the Basic Principles, Theory and Practice of using Relational Database. To emphasize the Need, Role, Importance and Uses of Databases in Applications development. To distinguish between different models of Organizing, Storing and use of data	
Unit No.	Topics	Hours
Unit I	Database Concepts: A Relational approach: Database – Relationships – Database Management System (DBMS) – The Relational Database Model – Integrity Rules – Theoretical Relational Languages. Database Design: Data Modeling and Normalization: Data Modeling – Dependency– Database Design– Normal forms – Dependency Diagrams – Denormalization.	14
Unit II	Oracle 9i: An Overview: Personal Databases – Client/Server Databases – Oracle9i: An Introduction – The SQL *Plus Environment – Structured Query Language (SQL) – Logging into SQL *Plus - SQL *Plus Commands. Oracle Tables: Data Definition Language (DDL): Naming Rules and conventions– Data Types – Constraints – Creating an Oracle Table– Displaying Table Information – Altering an Existing Table– Dropping, Renaming, Truncating a Table – Oracle’s Various Table Types – Spooling – Error Codes.	14
Unit III	Working with Tables: Data Management and Retrieval: Data Manipulation Language(DML) – Adding a new Row/Record – Customized Prompts – Updating and Deleting Existing Rows/Records – Retrieving Data from a Table – Arithmetic Operations – Restricting Data with WHERE clause – Sorting – Revisiting Substitution Variables – DEFINE command – CASE structure. Functions and Grouping: Built-in functions –Grouping Data. Multiple Tables: Joins and Set operators: Join – Set operators.	15
Unit IV	PL/SQL: A Programming Language: Fundamentals of PL/SQL – PL/SQL Block Structure –Comments– Data Types –Variable Declaration – Assignment Operation – Bind Variables– Substitution Variables – Printing – Arithmetic Operators. Control Structures and Embedded SQL: Control Structures – Nested Blocks – SQL in PL/SQL – Data Manipulation– Transaction Control statements. PL/SQL Cursors and Exceptions: Cursors – Implicit & Explicit Cursors and Attributes – Cursor FOR loops – SELECT...FOR UPDATE clause– WHERE CURRENT OF Clause – Cursor with Parameters –Cursor Variables – Exceptions – Types of Exceptions	14
Unit V	PL/SQL Composite Data Types: Records – Tables – VArrays. PL/SQL Named Blocks: Procedures – Functions – Packages –Triggers –Data Dictionary Views.	15

Text Book:

1. Nilesh Shah. "Database Systems using Oracle", PHI Learning Private Limited, 2nd edition.

Reference Books:

1. Raghuram Ramakrishnan and Johannes Gehrke, "Database Management Systems", McGraw-Hill Education, 2003.
2. Singh, "Database Systems: Concepts, Design & applications", Pearson Education.
3. Abraham Silberschatz, Henry F. Korth, S. Sudarshan, "Database System Concepts", McGraw-Hill, Fifth edition, 2005.

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Code No.	Subject	Semester No.
18ITU17	SOFTWARE ENGINEERING (For the students admitted in the academic year 2017-2018 and onwards)	IV
Objective:	The student should be made to: <ul style="list-style-type: none"> • Understand the phases in a software project • Understand fundamental concepts of requirements engineering and Analysis Modelling. • Understand the major considerations for enterprise integration and deployment. Learn various testing and maintenance measures. 	
Unit No.	Topics	Hours
UNIT I	SOFTWARE PROCESS MODELS The Evolving role of Software – Software –Process Models – Prescriptive Models— The Waterfall Model – Incremental Process Models – Incremental Process Models –Evolutionary Process Models – Specialized Process Models – The Unified Process	12
UNIT II	REQUIREMENT ENGINEERING System Engineering: Computer Based Systems-The System Engineering Hierarchy-Business Process Engineering: An Overview-Product Engineering: An Overview-System Modeling. Requirement Engineering: Requirements engineering tasks – Initiating the requirements Engineering Process-Eliciting Requirements – Developing Use cases – Building the Analysis Models – Negotiating Requirements – Validating Requirements.	12
UNIT III	ANALYSIS MODELLING Requirements Analysis – Analysis Modeling approaches – data modeling concepts – Object oriented Analysis – Scenario based modeling – Flow oriented Modeling – Class based modeling – creating a behavioral model.	12
UNIT IV	ARCHITECTURAL DESIGN Design Engineering: Design Concepts- The Design Model. - Architectural Design: Software Architecture-Data Design- Architectural Styles and Patterns-Architectural Design-Assessing Alternative Architectural Designs	12
UNIT V	TESTING STRATEGIES A strategic Approach to Software Testing-Test Strategies for Conventional Software-Validation Testing-System Testing. Testing Tactics: White-Box Testing-Basis Path Testing-Control Structure Testing-Black-Box Testing.	12

Text Book:

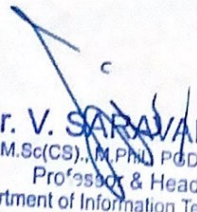
1. Roger S.Pressman, *Software Engineering: A Practitioner's Approach*, McGraw Hill International edition, Sixth edition, 2010.

Reference Books:

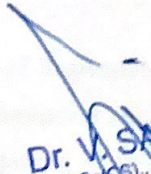
1. Ian Sommerville, *Software Engineering, 8th Edition*, Pearson Education, 2008.

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Code No.	Subject	Semester No.
18ITU18	PRACTICAL V: PROGRAMMING LAB – VISUAL BASIC (For the students admitted in the academic year 2017-2018 and onwards)	IV
Objective:	Make the students to write the code which covers the following objectives	
Ex. No.	Program List	
1	Create a Form to Generate Series Using Goto Labels Using Visual Basic.	
2	Create a VB Form to Add And Remove the Items in the List Box Using Add Item and Remove Item Methods.	
3	Write a Program to Create Font Style Form Using Combo Box.	
4	Write a Visual Basic Program to Create a Form to Change the Font Size Using Timer Control.	
5	Write a Visual Basic Program to Design Calculator Form Using Array of Command Buttons.	
6	Write a Program Using Visual Basic to Show Simple and Compound Interest.	
7	Create a Quiz Application Using Visual Basic.	
8	Write a Visual Basic Program to Create a Notepad Using VB.	
9	Write a Visual Basic Program to Create a Electricity Bill.	
10	Create Employee Pay Slip Using Visual Basic.	
11	Write a Visual Basic Program to Create Student Details Using Data Control in VB	
12	Design a VB Form to Run the “.avi” Files.	


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Code No.	Subject	Semester No.
18ITU19	PRACTICAL VI : ORACLE LAB (For the students admitted in the academic year 2017-2018 and onwards)	IV
Objective:	To Identify, Explore, and Transfer new Technologies that has the potential to substantially improve Oracle in various fields.	
Ex. No.	Program List	
1	Create a table for Student details with Registration Number as Primary Key and following fields: Name, Course, Gender, Age, Year of Joining and Percentage. Insert at least 10 rows and perform various queries using any one Comparison, Logical, Set, Sorting and Grouping Operators.	
2	Create a table for Student database and perform DDL and DML Commands.	
3	Write a program to create and design a data report for Employee Pay Slip using Column Format.	
4	Write Queries using Built-in Functions.	
5	Write a PL/SQL block to find out if a year is a leap year. A leap year is divisible by 4 but not by 100, or it is divisible by 400. (Hint: The function MOD (n,d) divides n by d and return the integer remainder from the operations).	
6	Write a PL/SQL code to find Factorial of a given number using Recursive Function.	
7	Write a PL/SQL program in Cursor using Loops.	
8	Write a trigger that is fixed before the DML statement's execution on the Employee table. The trigger checks the day based on the SYSDATE. If the day is Sunday the trigger does not allow the DML statement's execution and raises an exception. Write the appropriate message in the exception handling section.	
9	Create a database trigger to implement in the main and transaction tables which is related to the inventory system for checking the data validity with the tables having the needed fields	
10	Write a PL/SQL program to create a table for a bank account and create an exception for managing the account where the account is said to be zero.	


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Code No.	Subject	Semester No.
18ITU27	SOFTWARE TESTING (For the students admitted in the academic year 2016-2017 and onwards)	VI
Objective:	To develop the skill of Software Testing. Knowledge on Software Testing and how to test the software at various levels. To inculcate knowledge on Software Testing Concepts.	
Unit No.	Topics	Hours
Unit 1	Introduction to Testing: Principle of Testing- Context of Testing in Producing Software - A test in time-Test the test first-The end of pendulum- Putting all together-Phases of Software project.	14
Unit 2	Software development and Life cycle model: Quality Assurance and Control-Testing verification and validation- Process model to represent different phases-Life cycle model: Waterfall Model, Iterative Model or Spiral model- Rapid Application model and V model Prototyping .	15
Unit 3	Testing Types White box testing (Static testing and Structural testing), Black box testing: What is testing? , Why testing is done? , When testing is done? How testing is done? , Integration testing, Types of Integration testing, Scenario testing.	15
Unit IV	System and Acceptance Testing Over View of System and Acceptance Testing-Why System Testing-Functional Vs Non Functional Testing-Functional Testing- Non Function Testing-Acceptance Testing- Performance Testing- Factors of testing-Methodology of testing- Tools of testing.	14
Unit 5	Regression Testing What is Regression Testing- Types of Regression Testing - When Regression Testing is done- When Regression Testing is performed- Planning Regression Testing-Management of Regression Testing- Execution of Regression Testing- Reporting Regression Testing.	14

Text Books:

1. SrinivasanDesikan&Gopalswamy Ramesh, "Software Testing Principles and Practises", Pearson Educatio,2006.

Reference Books:

1. Renu Rajani, Prudexp Oak , "Software Testing - Effective Methods, Tools & Techatques" - Tata McGraw Hill.
2. Bob Hughes & Mike Cotterell, "Software Project Management ", 4th ed, PHI.
3. Ron Patton, "Software Testing" Second Edition, 2003 .

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Code No.	Subject	Semester No.
18ITU28	OPEN SOURCE TOOLS (For the students admitted in the academic year 2016-2017 and onwards)	VI
Objective:	Emphasize usability and a just works philosophy in default configurations and feature designs.	
Unit No.	Topics	Hours
Unit I	Introduction to open source Open source Introduction: Open Source – Open source vs. Commercial Software – What is Linux? – Free Software – Where I can use Linux? Linux Kernel – Linux Distributions	14
Unit II	Linux operating system Linux Introduction: Linux Essential Commands – File system Concept – Standard Files – Vi Editor – Partitions creation – Shell Introduction – String Processing – Installing Application	15
Unit III	Open Source Web Servers Open Source Web Servers: Installation, Configuration and administration of Apache, Nginx. Open Source Tools, IDE,RDBMS: Eclipse IDE, OpenStack cloud technology, Version Control Systems, GIT, CVS, Open Source Repositories: GitHub, SourceForge, Google Code, Open Source RDBMS:MYSQL basics, installation and usage, PostgreSQL, NoSQL, MongoDB, Hadoop	15
Unit IV	MY SQL Introduction to MY SQL – The Show Databases and Table – The USE command – Create Database and Tables – Describe Table – Select, Insert, Update and Delete statement – Some Administrative detail – Table Joins – Loading and Dumping a Database	15
Unit V	Server script Introduction : General Syntactic Characteristics – PHP Scripting – Commenting your code – Primitives , Operations and Expressions – PHP Variables – Operations and Expressions Control Statement – Array – Functions – Basic Form Processing – File and Folder Access – Cookies – Sessions – Database Access with PHP – MYSQL – MYSQL Functions – Inserting Records – Selecting Records – Deleting Records – Update Records	13

Text Book:

1. James Lee and Brent Ware: "Open Source Web Development with LAMP using Linux, Apache, MySQL, Perl and PHP", Dorling Kindersley(India) Pvt. Ltd, 2008.
2. Eric Rosebrock, Eric Filson: "Setting up LAMP: Getting Linux, Apache, MySQL and PHP and working Together", Published by John Wiley and Sons, 2004.

Reference Books:


1. Dacie Cristian- "Pack Pub AJAX and PHP" - 2006.
2. Scouarnec Yann- Stolz Jeremy Jeremy and Glass Michael - "Beginning PHP5- APACHE-MYSQL Web Development" - Wiley-India. New Delhi- 2005.
3. Christopher Diggins-" Linux Unwired"- Shroff Publishers & Distributors Pvt. Ltd-2004

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Code No.	Subject	Semester No.
18ITU29	PRACTICAL IX: SOFTWARE TESTING & ADVANCED NETWORKS LAB (For the students admitted in the academic year 2016-2017 and onwards)	VI
Objective:	To gain knowledge on how to test the Applications Using Automation test and to Inculcate knowledge on Software testing & Advance Networking Concepts.	
Ex. No.	Program List	
	SOFTWARE TESTING LAB	Automation Tool: Win runner
1	Perform Synchronization point test using Flight Reservation Application	
2	Create a software test case to perform TSL programming for Flight Reservation Application	
3	Develop a test case to implement the GUI object properties Test for the Flight Reservation Application	
4	Write a test case to perform Bitmap check points for Flight Reservation Application	
5	Write a test case to perform Database check points for Student Information Application	
6	Develop a test case to implement Data Driven Test	
ADVANCED NETWORK LAB		
1	Program to implement the File Transfer Protocol	
2	Program to downloading the file from HTTP Server	
3	Program to determine class, Network and Host ID	
4	Program to implement the RIP Routing Protocol	
5	Program to implement the Multicasting service.	
6	Study on Network interfacing and communication of physical objects, devices and peripherals	


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Code No.	Subject	Semester No.
18ITU30	PRACTICAL XI: OPEN SOURCE LAB (For the students admitted in the academic year 2016-2017 and onwards)	VI
Objective:	To enable the students to gain knowledge in developing programs of Open Source Tools for certain specified problems.	
Ex. No.	Program List	
1.	Write a shell script to show the following system configuration: a. Currently logged user and his log name. b. Current shell, home directory, Operating System type, current Path setting, current working directory. c. Show currently logged number of users, show all available shells. d. Show CPU information like processor type, speed. e. Show memory information.	
2.	Write a shell script to implement the filter commands	
3.	Create a mysql table and execute queries to read, add, remove and modify a record from that table.	
4.	Write a PHP program interface to create a database and to insert a table into it.	
5.	Write a PHP program using classes to create a table.	
6.	Write a PHP program to upload a file to the server.	
7.	Write a PHP program to access the data stored in a mysql table.	
8.	Write a PHP program to create a directory, and to read contents from the directory.	
9.	Write a server side PHP program that displays marks, total, grade of a student in tabular format by accepting user inputs for name, number and marks from a HTML form.	
10.	Write a PHP program that adds products that are selected from a web page to a shopping cart.	


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