Faculty of Engineering & Technology
KAKATIYA UNIVERSITY, WARANGAL-506 009
Department of Computer Science &Engineering

B. Tech. (CSE) V SEMESTER

S. No.	Course Code	Course Title	Scheme of Instruction			Lecture hrs/week	Scheme of Examination		Credits
			L	T	P		CIE	SEE	
1	PC3101CS	Database Management Systems	3	1	0	4	30	70	4
2	PC3102CS	Theory of Computation	3	1	0	4	30	70	4
3	PE-I*	Professional Elective – I*	3	1	0	4	30	70	4
4	ES3106CS	Principles of Signals and Systems	3	0	0	3	30	70	3
5	HS3108-	Managerial Economics and Accountancy	3	0	0	3	30	70	3
6	PC3109CS	Database Management Systems Lab	0	0	3	3	25	50	1.5
7	PE-I**	Professional Elective –I Lab**	0	0	3	3	25	50	1.5
	Total		**15**	**3**	**6**	**24**	**200**	**450**	**21**

***(PE-I)Professional Elective – I**

PE3103CS Web Programming
PE3104CS Advanced Java
PE3105CS Dotnet Technologies

****(PE-I)Professional Elective – I Lab**

PE3110CS Web Programming Lab
PE3111CS Advanced Java Lab
PE3112CS Dotnet Technologies Lab

Faculty of Engineering & Technology
KAKATIYA UNIVERSITY, WARANGAL-506 009
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B. Tech. (CSE) V SEMESTER

DATABASE MANAGEMENT SYSTEMS (PC3101CS)

Teaching Scheme				Examination Scheme
L	T	P	C	Internal Marks: 30
3	1	0	4	External Marks: 70

UNIT – I

Introduction to Database System and its Applications: Evolution of DBMS, File Systems versus a DBMS, Data Models, Levels of Abstraction in a DBMS, Data Independence, Structure of a DBMS.
Data modeling: Introduction to ER model, Naming, conventions, Entities, Attributes, and Entity Sets, Relationships and Relationship Types, Constraints.

UNIT – II

Relational Model: Introduction, constraints over relations, integrity constraints, Querying relational data, and logical data base design, introduction to views, Relational Algebra, Tuple relational Calculus, Domain relational calculus.

UNIT – III

SQL: Introduction, Syntax, Basic commands, Specifying constraints, Basic Queries, Nested Quires, Queries using different Clauses, Cursors, Triggers, Built-in SQL functions.
Database Design refinement: Informal Design guidelines, Issues of redundancy, null values and decomposition, functional dependencies, FIRST, SECOND, THIRD normal forms, BCNF, lossless join, multi-valued dependencies, FOURTH normal form, FIFTH normal form.

UNIT – IV

Transaction Processing: Introduction, Transaction State and desirable properties, Transaction schedules, Serializability, and Recoverability.
Concurrency control Techniques: Introduction, locking techniques and Timestamp Based Protocols.
Database Recovery techniques: Recovery Techniques based on deferred update, Recovery Techniques based on immediate update. Shadow Paging.

UNIT – V

Data Storage and indexing: File Organization and Indexing, Cluster Indexes, Primary and Secondary Indexes, Index data Structures, Hash Based Indexing, Tree base Indexing, Comparison of File Organizations.

Text Books:

1. Database Management Systems, Raghurama Krishnan, Johannes Gehrke, Tata McGraw Hill 3rd Edition
2. Database System Concepts, Silberschatz, Korth, Mc Graw hill, V edition.

References:

1. Database Systems design, Implementation, and Management, Peter Rob & Carlos Coronel, 7thEdition.
2. SQL The Complete Reference, James R. Groff, Paul N. Weinberg, 3rd Edition,
3. Oracle for Professionals, The X Team, S.Shah and V. Shah, SPD.
4. Database Systems Using Oracle: A Simplified guide to SQL and PL/SQL, Shah, PHI.

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B. Tech. (CSE) V SEMESTER

THEORY OF COMPUTATION(PC3102CS)

Teaching Scheme				Examination Scheme
L	T	P	C	Internal Marks :30
3	1	0	4	External Marks :70

UNIT – I

Introduction and Finite Automata:
Alphabets, Strings, Languages, Definition and applications of Finite Automata (FA), acceptance of strings and languages, Deterministic Finite Automata (DFA) and its representation, Non Deterministic Finite Automata (NFA), transition diagrams and Language recognizers. Conversions and Equivalence of NFA and DFA, NFA with ε- transitions and its conversion to NFA without ε- transitions, Minimization of Automata, Equivalence between two Automata's,.

UNIT – II

Finite Automat with output and Regular Expressions:
Finite Automata with output- Moore and Mealy machines and its equivalence. Definition of Regular expression(RE), Algebraic laws for Regular Expressions, Applications of REs, Regular sets, Regular languages, Designing of Finite Automata for Regular expression, DFA to Regular expression, Arden's Theorem, Non Regular Languages, Pumping Lemma for regular Language, Applications of Pumping lemma, Closure properties of Regular languages.

UNIT – III

Regular Grammar, Context Free Grammars and Languages:
Formal definition of Grammar, Regular Grammar, Right linear and left linear grammars, Equivalence between regular grammars and Finite Automata, Chomsky Hierarchy of Grammar Context Free Grammar (CFG), Leftmost, Rightmost derivations, Ambiguity in grammars and languages. Designing of grammar for regular language, Simplification of Context Free Grammars, Closure Properties of CFL.

UNIT – IV

Normal forms and Pushdown Automata:
Definition of Normal Form, Chomsky Normal Form (CNF), Greiback normal form (GNF),
Conversion of CFG to CNF and GNF.
Pushdown Automata: Definition of Push Down Automata(PDA) , Representation and Acceptance of PDA, Designing PDA, Equivalence of CFG and PDA, Pumping Lemma for Context Free Languages.

UNIT –V

Context sensitive Languages and Turing Machine:
Definition of Linear Bounded Automata and its Representation, Introduction to Turing Machines(TM), Definition and Representation of TM, Variations of TM: Multitape TMs, Non Deterministic TM, Universal TM, Designing of TM.
Undesirability and Recursively enumerable languages: Recursive and Recursively enumerable languages, Definition of Undecidable Problem, Halting Problem, Post's Correspondence Problem (PCP).

Text Books:

1. John E. Hopcroft, Rajeev Motwani and Jeffrey D. Ullman, Introduction to Automata Theory, Languages, and Computation, Pearson Education Asia, 3rd Edition, ISBN: 978-1292039053, 2013
2. Mishra K.L.P., Chandrasekaran N,"Theory Of Computer Science: Automata, Languages and Computation", PHI Learning Pvt. Ltd., 3rd Edition, ISBN: 978-81-203-2968-3, 2012

References:

1.Harry R. Lewis and Christos H. Papadimitriou, Elements of the Theory of Computation, Pearson Education Asia, 2nd edition,ISBN: 978-0132624787, 1998.
2. Michael Sipser, Introduction to the Theory of Computation, PThomson South-Western, 3rd Edition, ISBN: 1133187811, 2012.
3. John Martin, Introduction to Languages and The Theory of Computation, Tata McGraw- Hill Education Pvt. Ltd., 4th Edition, ISBN: 9780073191461, 2010.
4. Dexter C. Kozen, Automata and Computability, Undergraduate Texts in Computer Science, Springer, 1st Edition, ISBN: 9781461273097, 2012.

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Department of Computer science &Engineering

B. Tech. (CSE) V SEMESTER

Professional Elective – I

WEB PROGRAMMING (PE 3103CS)

Teaching Scheme				Examination Scheme
L	T	P	C	Internal Marks :30
3	1	0	4	External Marks :70

UNIT – I

Web Basics- Introduction, Concept of Internet- Protocols of Internet, World Wide Web, URL, Web Server, Web Browser.

HTML- Introduction, History of HTML, Structure of HTML Document: Text Basics, Images and Multimedia, Links and webs, Document Layout, Cascading Style Sheet- HTML 4 style sheet features, Creating Forms, Frames and Tables.

UNIT – II

Dynamic HTML- Introduction of DHTML- HTML vs. DHTML, Advantages of DHTML,CSS of DHTML, Event Handling, Data Binding, Browser Object Models.

XML Introduction- Introduction of XML- Some current applications of XML, Features of XML, Anatomy of XML document, The XML Declaration, Element Tags Nesting and structure, XML text and text formatting element, Table element, Mark-up Element and Attributes, Document Type Definition (DTD), types.XML Schema, Importance of XML schema, Creating Element in XML Schema, XML Schema Types.

Introduction of Java Script: JavaScript characteristics, Objects in Java Script, Dynamic HTML with Java Script.

UNIT – III

AJAX Introduction- Introduction, AJAX Introduction, AJAX Components, Handling Dynamic HTML with AJAX, CSS to Define Look and Feel, Understand the XML Mark-up, XMLHttpRequest.AJAX using XML and XML HttpRequest- Introduction, AJAX Using XML and XMLHttpRequest, Accessing, Creating and Modifying XML Nodes, Loading XML Data into an HTML Page, Receiving XML Responses, Handling Response XML.

UNIT – IV

PHP Introduction- PHP Introduction, Structure of PHP, PHP Functions, AJAX with PHP, PHP Code and the Complete AJAX Example. AJAX with Database- Introduction, AJAX Database, Working of AJAX with PHP, AJAX PHP Database Form, AJAX PHP MySQL Select Query.

UNIT – V

Active Server Page- Introduction, Introduction of ASP, ASP – Variables, ASP Control Structure, ASP Objects' Properties and Methods.ASP Database Connectivity- Introduction, ASP Components, ASP Database Connection, ASP Scripting Components.

Text Books:

1. Steven Holzner, “HTML Black Book”, DreamTech press.
2. Web Technologies, Black Book, DreamTech Press
3. Web Applications:Concepts and Real World Design, Knuckles, Wiley-India
4. Internet and World Wide Web How to program, P.J. Deitel& H.M. Deitel Pearson.

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B. Tech. (CSE) V SEMESTER

Professional Elective – I

ADVANCED JAVA(PE3104CS)

Teaching Scheme				Examination Scheme
L	**T**	**P**	**C**	Internal Marks :30
3	1	0	4	ExternalMarks:70

UNIT –I

Swings, JavaFX and Event Handling:
Swing: Introduction to swings, Comparison with AWT, Exploring Swing Components: JTextField, Jlabel, Swing buttons, JPasswordField, JTable, JComboBox, JList, JTree, JColorChooser, Dialogs and Swing Menus. Event Handling- The Delegation event model- Events, Event sources, Event Listeners, Event classes, Handling action ,mouse and keyboard events, Adapter classes, Inner classes, Anonymous Inner classes.
GUI programming with JavaFX: JavaFX basic concepts, JavaFX Application Structure, JavaFX Controls and Event handling.

UNIT –II

Networking and Collection frame work:
Networking: Networking API, Inet address, TCP/IP client sockets, URL, URL connection, HttpURL connection, Cookies, TCP/IP server sockets, Datagrams.
Collections Frame work: Collection Interfaces, Collection Classes: Array Class,Vector Class, Stack Class, Dictionary class, Hash table Class. accessing using iterators, working with maps, comparators.

UNIT – III

Java Database Connectivity (JDBC):
Introduction, JDBC Drivers, JDBC Architecture, JDBC Classes and Interfaces, Loading a Driver, Making a Connection, Execute SQL Statement, statement, prepared statement, callable statement, Retrieving Result, Getting Database Information, Scrollable and Updatable Resultset, Result Set Metadata.

UNIT –IV

Servlets:
Servlet: Server-Side Java, Servlet Alternatives, Servlet Strengths, Servlet Architecture, Servlet Life Cycle, GenericServlet, HttpServlet, Exploring Servlet API, Handling HTTP Requests and Responses, Passing Parameters to Servlets, Retrieving Parameters, Session Tracking, Filters.

UNIT – V

Java Server Pages(JSP):
Problem with Servlets, Life Cycle of JSP Page, JSP Processing, JSP Application Design with MVC, Setting Up the JSP Environment. JSP Directives, JSP Action elements, JSP Implicit Objects, JSP Form Processing, JSP Session and Cookies Handling, JSP Session Tracking JSP Database Access, JSP Standard Tag Libraries,JSP Custom Tag,JSP Expression Language, JSP Exception Handling, JSP XML Processing, JSTL.

Text Books:

1. HerberttSchildt, Java Complete Reference Tenth Edition, McGraw Hill.
2. JDBC, Servelts and JSP black book , Dreamtech Publishers.
3. Uttam K. Roy, Advanced Java programming, Oxford University Press.

References:

1. Bert Bates , Kathy Sierra and , Bryan Basham, " Head First Servlets & JSP", ORelly.
2. Sharanam Shah, Vaishali Shah, Java EE 7 for Beginners
3. Cay S. Horstmans, Gray Coronell, Core Java Vol. II – Advanced Features
4. Joel Murach, Michael Urban, Java Servlets and JSP, 3rdEdition, 2014
5. Cay S. Horstmann, Core Java Volume I – Fundamentals, Pearson, 2019
6. Joel Murach, Java Programming, 5thEdition, 2017

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B. Tech. (CSE) V SEMESTER

Professional Elective – I

DOTNET TECHNOLOGIES (PE3105CS)

Teaching Scheme				Examination Scheme
L	T	P	C	Internal Marks :30
3	1	0	4	External Marks :70

UNIT I

Programming Models – Introduction to .NET Framework – Evolution of .NET technologies - CTS, CLS, CLR, MSIL, JIT, Assemblies, .NET Security Model – Introduction to Base Class Library
Introduction to VB.NET - Working with Visual Studio IDE – IDE Components –Environment Options VB.NET Fundamentals – Variables – Data Types – Arrays – Control Flow Statements – Modular Coding – Subroutines – Functions – Argument-Passing

UNIT II

Classes – Instance Fields – Constructors – Properties – Methods – Object – Inheritance – Static Classes – Interfaces
Exception Handling– Need – Models – Statements – Creating Exception Classes
Collections – Arrays – ArrayList Collection – HashTable Collection – SortedList Class – IEnumerator and IComparer Interfaces
Handling Strings, Characters and Dates – File Class - Directory Class – Accessing Files – FileStream– StreamWriter– StreamReader– BinaryWriter- Binary Reader

UNIT III

Windows Forms – Form Properties – Form Events - Building Dynamic Forms at Runtime
Introduction to Components and controls – Adding Components and controls to forms – Layout and Grouping – Responding to User Inputs – Mouse and Keyboard Events – Designing Menus – Building MDI Applications- Reading Input through Controls – Presentation and Information Controls – Common Dialog Controls – RichTextBox Control - Creating Windows Installer.

UNIT IV

ADO.NET Architecture – DataSet – DataGrid Control- Data Binding – DataAdapter – Command Objects – DataReader - Performing Updates
Introduction to Web Programming – Building Web Applications – Web Controls - Interacting with Web Applications – Maintaining State – ASP.NET Objects – Page Object – Response Object – Request Object – Server Object – Deploying ASP.NET Applications.

UNIT V

Data-Bound Web Controls – Simple Data binding – Binding to DataSets – Customizing dataGrid Control
Building and Consuming Web Services – ASP.NET Web Service Projects
Theoretical Introduction to C# and its Comparison with VB

Text Books:

1. VB.NET Complete Reference – Jeffrey R. Shapiro – Tata McGrawHill – 2006
2. Mastering Visual Basic. NET – Evangelos Petroutsos – BPB Publications - 2005

References:

1. ADO.NET Complete Reference – Michael Otey , Denielle Otey, Tata McGrawHill, 2005
2. Mastering Visual Basic. NET Database Programming– Evangelos Petroutsos , Ali Bilgin– BPBPublications – 2002
3. Pro C# with .NET 3.0 – Andrew Troelsen – Special Edition 20

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KAKATIYA UNIVERSITY, WARANGAL-506009

Department of Computer science &Engineering

B. Tech. (CSE) V SEMESTER

PRINCIPLES OF SIGNALS AND SYSTEMS(ES3106CS)

Teaching Scheme				Examination Scheme
L	T	P	C	Internal Marks :30
3	0	0	3	External Marks :70

UNIT-I

Introduction to Signals & Systems: Classification of signals, Operations on signals, types of systems, Exponential and Trigonometric Fourier series, Dirichlet's condition.

UNIT-II

Fourier Transform: Representation of aperiodic signal, Introduction of Fourier transform, Convergence, properties of Fourier Transform, Fourier transform of periodic signals, Singularity function, Parseval's theorem, Energy spectral density, Development of Discrete Time Fourier transform, Convergence issues associated with the DTFT.

UNIT-III

Sampling: Sampling of continuous time signals, sampling theorem, Aliasing effect, reconstruction of a signal and its samples.
Convolution & Correlation of signals: Convolution integral, Properties of convolution, Graphical method of convolution, Convolution of Discrete time signals, overlap-add and overlap-save method of discrete convolution, Definition of correlation, Auto correlation, Properties of Autocorrelation, Cross correlation of signals.

UNIT-IV

Laplace Transform: Review of Laplace transforms, region of convergence and properties, poles and zeros, relation between Laplace and Fourier transforms, properties of Laplace transform, inverse Laplace transform, Solutions to differential equation and system behavior.

UNIT-V

Z Transform: Definition of Z-Transform, Properties of Z-Transform, Region of convergence of Z-Transform, Inverse Z Transform using Inspection, Partial fraction expansion, Power series Expansion, Contour integration methods, Parseval's relation analysis of discrete time systems using Z-Transform. Realization of discrete time systemusingDirect form, Cascade parallel forms.

References:

1. Alan V. Oppenheim, Alan. S. Willsky, S Hamid Nawab, Signals and Systems, 2nd edition, Prentice Hall of India, 2007.
2. Lathi B.P., Signals Systems Communications", 1st edition, B.S. Publications, 2006.
3. Simon Haykin and Van veen, "Signal and system", Willy, second edition

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B. Tech. (CSE) V SEMESTER

MANAGERIAL ECONOMICS AND ACCOUNTANCY (HS3108-)

Teaching Scheme				Examination Scheme
L	T	P	C	Internal Marks :30
3	0	0	3	External Marks :70

UNIT-I

Meaning and Nature of Managerial Economics: Managerial Economics and its usefulness to Engineers, Fundamental Concepts of Managerial Economics-Scarcity, Marginalism, Equimarginalism, Opportunity costs, Discounting, Time Perspective, Risk and Uncertainty, Profits, Case study method.

UNIT-II

Consumer Behavior: Law of Demand, Determinants, Types of Demand; Elasticity of Demand (Price, Income and Cross-Elasticity); Demand Forecasting, Law of Supply and Concept of Equilibrium.

UNIT - III

Theory of Production and Markets: Production Function, Law of Variable Proportion, ISO quants, Economics of Scale, Cost of Production (Types and their measurement), Concept of Opportunity Cost, Concept of Revenue, Cost-Output relationship, Break-Even Analysis, Price - Output determination under Perfect Competition and Monopoly.

UNIT-IV

Capital Management: Significance, determination and estimation of fixed and working capital requirements, sources of capital, Introduction to capital budgeting, methods of payback and discounted cash flow methods with problems.

UNIT-V

Book-keeping: Principles and significance of double entry book keeping, Journal, Subsidiary books, Ledger accounts, Trial Balance, concept and preparation of Final Accounts with simple adjustments, Analysis and interpretation of Financial Statements through Ratios.

References:

1. Mehta P.L., Managerial Economics - Analysis, Problems and Cases,Sulthan Chand & Sons Educational Publishers, 2011
2. Maheswari S.N., Introduction to Accountancy, Vikas Publishing House, 2005
3. Pandey I.M., Financial Management, Vikas Publishing House, 2009

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B. Tech. (CSE) V SEMESTER

DATABASE MANAGEMENT SYSTEM LAB(PC3109CS)

Teaching Scheme				Examination Scheme
L	T	P	C	Internal Marks :25
0	0	3	1.5	External Marks :50

List of Experiments

1. Database design with E-R Model
2. Database design with Relational Model
3. Practicing DDL commands
4. Practicing DML commands
5. Querying (using ANY, ALL, IN, Exists, NOT EXISTS, UNION, INTERSECT, Constraints etc.)
6. Queries using Aggregate functions, GROUP BY, HAVING and Creation and dropping of Views.
7. Triggers (Creation of insert trigger, delete trigger, update trigger)
8. Usage of Cursors
9. Basics of PL/SQL
10. Stored Procedures

Text Books:

1. Database Management Systems, Raghurama Krishnan, Johannes Gehrke, Tata Mc Graw Hill 3/e.
2. Database System Concepts, Silberschatz, Korth, Mc Graw hill, V edition.

References:

1. Database Systems design, Implementation, and Management, Peter Rob & Carlos Coronel,7/e.
2. SQL The Complete Reference, James R. Groff, Paul N. Weinberg, 3rd Edition.
3. Oracle for Professionals, The X Team, S.Shah and V. Shah, SPD.
4. Database Systems Using Oracle: A Simplified guide to SQL and PL/SQL,Shah,PHI.

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B. Tech. (CSE) V SEMESTER

Professional Elective – I Lab

WEB PROGRAMMING LAB (PE3110CS)

Teaching Scheme				Examination Scheme
L	T	P	C	Internal Marks :25
0	0	3	1.5	External Marks :50

List of Experiments

1. Design web pages for your college containing a description of the courses, departments, faculties, library etc, use href, list tags.
2. Create your class timetable using table tag.
3. Create user Student feedback form using textbox, text area , checkbox, radio button, select box etc.
4. Create a web page using frame. Divide the page into two parts with Navigation links on left hand side of page (width=20%) and content page on right hand side of page (width = 80%). On clicking the navigation Links corresponding content must be shown on the right hand side.
5. Write html code to develop a webpage having two frames that divide the webpage into two equal rows and then divide the row into equal columns fill each frame with a different background color.
6. Create your resume using HTML tags also experiment with colors, text , link ,size and also other tags you studied.
7. Design a web page of your home town with an attractive background color, text color, an Image, font etc. (use internal CSS).
8. Use Inline CSS to format your resume that you created.
9. Use External CSS to format your class timetable as you created.
10. Use External, Internal, and Inline CSS to format college web page that you created.
11. Develop a JavaScript to display today's date.
12. Develop simple calculator for addition, subtraction, multiplication and division operation using JavaScript
13. Create HTML Page with JavaScript which takes Integer number as input and tells whether the number is ODD or EVEN.
14. Create HTML Page that contains form with fields Name, Email, Mobile No , Gender , favourite Color and a button now write a JavaScript code to combine and display the information in textbox when the button is clicked.
15. Implement Validation in above Feedback Form.
16. Use regular expression for validation in Feedback Form.
17. Using AJAX retrieve data from a TXT file and display it.
18. Create XML file to store student information like Enrolment Number, Name, Mobile Number and Email Id.
19. Create DTD for above XML File. Create XML Schema for above (Practical No. 18)
20. Create XSL file to convert above XML file intoXHTML file.
21. Write a PHP program to display today's date in dd-mm-yyyy format.
22. Write a PHP program to check if number is prime or not.
23. Write a PHP program to print first 10 Fibonacci Numbers.
24. Create HTML page that contain textbox, submit / reset button. Write PHP program to display this information and also store into text file.
25. Write a PHP script to read data from txt file and display it in html table (the file contains info in format Name: Password: Email).

26. Write a PHP Script for login authentication. Design an html form which takes username and password from user and validate against stored username and password in file.
27. Write PHP Script for storing and retrieving user information from MySql table.
    a. Design A HTML page which takes Name, Address, Email and Mobile No. from user.
    b. Store this data in MySql database / text file.
    c. Next page display all user in html table using PHP.
28. Write a PHP script for user authentication using PHP-MYSQL. Use session for storing surname.
29. Fetch information from a database with AJAX.
30. Students have to create a whole Website which contains above topics in Website

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B. Tech. (CSE) V SEMESTER

Professional Elective– I Lab

ADVANCED JAVA LAB (PE3111CS)

Teaching Scheme				Examination Scheme
L	T	P	C	Internal Marks :25
0	0	3	1.5	External Marks :50

List of Experiments

1. Java Program to create login form with swing Components.
2. Java Program to create student registration form with swing components.
3. Java Program to demonstrate Jtree, Menus, Jtable in swing.
4. Java Program to handle action events, key events, mouse events.
5. Write simple JavaFx program to display “welcome message”
6. Write JavaFx Program to insert image in window.
7. Java program to create simple form using JavaFx.
8. Java program to handle action events using JavaFx.
9. Java Program to Create a Server for the purpose of URL supplied to URL class object
10. Java Program to Create a Server that Receives Data from the Client Using BufferedReader and Sends Reply to the Client Using PrintStream
11. Java Program that Accepts the Filename and Checks for its Existence. When the File Exists at Server Side, Send its Contents to the Client
12. Java Program of a Client Program to Accept a File Name from the Keyboard and Send that Name to the Server. The Client Receives the File Contents from the Server.
13. Java Program to Use Datagram Socket for Client Server Communication
14. Demonstrate operations of Vector, ArrayList, LinkedList collection classes?
15. Demonstrate operations of HashMap, TreeMap, LinkedHashMap collection classes?
16. Demonstrate operations of HashSet, TreeSet, LinkedHashSet collection class
17. Demonstrate operations of Stack, ArrayQueue, PriorityQueue collection classes?
18. Create a phone directory with names and phone numbers using hash table?
    Search the directory by name?
    Search the directory by phone number?
19. Java program to create a SQL table using JDBC and insert data value.
20. Java program to insert, modify, update value in SQL table using JDBC.
21. Java program to demonstrate prepared and callable statements.
22. Java Program to demonstrate scrollable result set.
23. Java Program to display meta data of a SQL table.
24. Java Program to create HTTP servlet and display a Welcome message.
25. Java program to retrieve the details from login form and display using Servlet.
26. Java program to create servlet to servlet communication.
27. Java program to retrieve the parameters from servlet.
28. Java Program to send parameters to servlet.
29. Java Program to handle session tracking using servlet.

30. JSP program to retrieve the name from web form and send greet message.
31. JSP Program to retrieve two integers from client and display their sum at client.
32. Write a JSP application that checks the login credentials and display appropriate message back to the Client?
33. JSP program to perform database operations.
34. JSP program to create cookies.
35. JSP program to handle database operations using JSTL.

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Department of Computer Science &Engineering

B. Tech. (CSE) V SEMESTER

Professional Elective – I Lab

DOTNET TECHNOLOGIES LAB (PE3112CS)

Teaching Scheme				Examination Scheme
L	T	P	C	Internal Marks :25
0	0	3	1.5	External Marks :50

List of Experiments

1. Familiarization with IDE
2. Programming Console applications using VB.NET covering all aspects of VB.NET fundamentals
3. Object oriented programming using VB.NET covering objects, Inheritance, Polymorphism, Constructors,
    a. Static Classes and Interfaces
4. Programs to implement Exception Handling concepts
5. Programs to implement use of Collections
6. Programs to perform File I/O Operations
7. Programming Windows applications using VB.NET covering all major controls and components, Menus,
    b. MDI, Event Handling
8. Creating windows installer
9. Programs to interact with Database from a Windows Desktop Application
10. Programming to Build web applications using web controls, maintaining state
11. Deploying ASP.NET web application
12. Programs to interact with Database from a Web Application using appropriate controls
13. Programs to create and consume a Web Service