2. B.Sc. CS Semester - IV Syllabus

B.Sc. CS Semester – IV (Second Year)

Subject Title : **Advanced Database Management System**
Subject Code : **CSM208-2C**
Subject Type : **Major**

Rationale:

The primary objective of this course is to provide in-depth knowledge of back-end development through PL/SQL concepts and programming.

Learning Outcomes:

Students will learn Basic features of PL/SQL, Data retrieval and Exception handling in PL/SQL, Creating and managing named PL/SQL blocks (Procedure, function, package and triggers) and advanced features of PL/SQL.

Teaching and Evaluation Scheme:

Credit	Duration in Hours		Maximum Marks		
	Theory	Practical	CCE (Formative)	SEE (Summative)	Total
4	30	60	50	50	100

Course Content

Unit I **[Weightage=25% approx., Lectures=7, Practicals= 16]**

Introduction to RDBMS: Dr. E. F. Codd 12 rule, ACID Property, DBMS vs. RDBMS

PL/SQL Concepts:

PL/SQL – Overview, PL/SQL Execution Environment, – Block structure, PL/SQL – Advanced Data Types, Declaring Variable, Writing Simple PL/SQL Block, Labeling Blocks, Nesting Blocks.

Control Structures - IF, CASE, LOOP, FOR, WHILE.

Operators: Arithmetic operators, Relational operators, Comparison operators, Logical operators, String operators,

Overview of Function and Procedure, Function and Procedure Usage, Creation of Stored Procedure, Calling Stored Programs from Stored Programs, Creation of User Defined Function, Calling Function from Stored Programs

03/06/2024

Unit II   **[Weightage=25% approx., Lectures=7, Practicals= 14]**

PL/SQL Programming:

Exception handling: Defining exceptions, Built-in exceptions (NO_DATA_FOUND, ZERO_DIVIDE, VALUE_ERROR, TOO_MANY_ROWS), Using the when others clause

Cursors in PL/SQL: Cursor basics, Using a cursor for a multi-row SQL query.

packages, Basics of Sequences

Triggers in PL/SQL: Triggers and database events, defining a trigger, Timing a trigger, Enabling and disabling a trigger.

Introduction of Index, Create Index Statement, Create Unique Index, Drop Index Statement

Unit III   **[Weightage=25% approx., Lectures=8, Practicals= 16]**

Transaction Management:

Transaction concepts, properties of transactions, serializability of transactions, testing for serializability, System recovery, Two- Phase Commit protocol, Recovery and Atomicity, Log-based recovery, concurrent executions of transactions and related problems, Locking mechanism, solution to concurrency related problems, deadlock, , two-phase locking protocol, Isolation, Intent locking.

Unit-IV   **[Weightage=25% approx., Lectures=8, Practicals= 14]**

Oracle Database Concepts:

Oracle database architecture – Logical structures, Physical structures, Memory Structures, Background processes.

Database startup and shutdown types.

Backup and recovery – Logical backup, Physical backup, Backup methods, Instance recovery, Full recovery.

Performance tuning using indexes, types of indexes.

Reference Books:

- Database system concepts', 6th Edition –Abraham Silberschatz, Henry Korth, S, Sudarshan, (McGraw Hill International)

- Database systems: "Design implementation and management"- Rob Coronel, 4thEdition, (Thomson Learning Press)

- Database Management Systems - Raghu Ramkrishnan, Johannes Gehrke Second Edition, (McGraw Hill International)

- Database Management System - Alexis Leaon, Mathews Leon, (leon press)
- Fundamentals of Database Systems - RemezElmasri ,Shamkant Navathe,Pearson,5th Ed
- Database Systems – a Practical approach to design, implementation & Management Thomes M. Colnnolly, Carolyn E. Begg, Pearson 4th Ed.

Practical List:

Designing and implementation of following:

- Simple PL/SQL Blocks
- PL/SQL Blocks using built-in functions
- PL/SQL blocks using Arithmetic operators, Relational operators Comparison operators, Logical operators, String operators
- PL/SQL blocks using Control Structures IF, CASE, LOOP, FOR, WHILE
- PL/SQL Blocks using cursors
- PL/SQL Blocks for Error Handling
- Stored Procedures
- Functions
- Triggers
- Packages and usage of in-built packages

03/06/2024

B.Sc. CS Semester – IV (Second Year)

Subject Title : **Operating System**
Subject Code : **CSM209-2C**
Subject Type : **Major**

Rationale:

Operating System and Programming provides the concept of operating system and its different components like process management, memory management, file management, device management.

Learning Outcomes:

From this subject, the student will be able to:

- Introduced about Operating System
- Understand the technical aspects of different Components of Operating System like Process Management, Memory Management, File Management, Device Management, etc.
- Understand the Concept of Deadlock
- Understand the Concept of CPU Scheduling
- Learn Linux/ UNIX Basic Commands and Shell Scripting.

Teaching and Evaluation Scheme:

Credit	Duration in Hours		Maximum Marks		
	Theory	Practical	CCE (Formative)	SEE (Summative)	Total
4	30	60	50	50	100

Course Content

Unit-I: [Weightage=25% approx., Lectures=7, Practicals= 14]

Introduction: What is an Operating System? Operating System Services. Mainframe Systems, Desktop Systems, Multiprocessor Systems, Distributed Systems, Clustered Systems, Real- Time Systems.

Computer-System Structures: Operation, I/O Structure, Storage Structure, Storage Hierarchy.

Operating-System Structures: System Components; Operating-System Services; System Calls; System Programs; System Structure, System Design and Implementation, System Generation. Processes: Process Concept; Process Scheduling, Operations On Processes.

Unit II   **[Weightage=25% approx., Lectures=7, Practicals= 14]**

CPU Scheduling: Basic Concepts; Scheduling Concept & Criteria; Scheduling Algorithm (FCFS, SJF, Priority Scheduling, RR).

Deadlocks, Conditions on Deadlocks, Strategies for handling deadlock, deadlock prevention, recovery from deadlock.

Unit III   **[Weightage=25% approx., Lectures=8, Practicals= 16]**

Storage and File Management: Memory Management- Backward, Swapping, Contiguous Memory Allocation, Paging, Segmentation, Segmentation with Paging.

File-System Interface: File Concept; Access Methods; Directory Structure; Protection.

File-System Implementation: File-System Structure; File-System Implementation; Directory Implementation; Allocation Methods, Free-Space Management.

Device Management: Overview, Disk structure, Disk Scheduling algorithms: FCFS, SSTF, SCAN, LOOK, C-SCAN, C-LOOK

Unit IV: **[Weightage=25% approx., Lectures=8, Practicals= 16]**

The Linux System and Shell Scripting: History; Design Principles; Kernel Modules; Process Management; Scheduling; Memory Management; File Systems; Input And Output; Security.

Basic Commands Unix/Linux:
- Mkdir,rmdir,cp,mv,ls,cal,date,cat,cd,find,head,tail,ps,passwd,nohup,touch,sh,who,ch mod
- Finding Patterns in Files (grep, egrep, fgrep, look)
- Counting Lines, Words and File Size (wc, nl),
- Working with Columns and Fields (cut, paste, colrm, join)
- Sorting the Contents of Files (sort, uniq)
- Comparing Files (cmp, comm., diff, patch)
- Examining File Contents(od, strings, tac)
- Changing Information in files (tr, sed)
- Performing Mathematical Calculations (bc, dc).

03/06/2024

Text book: 1. A. Silberschatz et.al. -Operating System Concepts, 6th Edition, John Wiley Inc., 2003

Reference books:

- H.M. Deitel -Operating Systems, 6th Edition, Pearson Education, 2006
- D.M. Dhandhare - Operating Systems, 2nd Edition, Tata McGraw Hill, New Delhi, 2006

Assignments:

- **Commands like:**

  Mkdir,rmdir,cp,mv,ls,cal,date,cat,cd,find,head,tail,ps,passwd,nohup,touch,sh,who,chmod, grep, egrep, fgrep, look, wc, nl, cut, paste, colrm, join, sort, uniq, cmp, comm., diff, patch, od, strings, tac, tr, sed, bc, dc

- **Simple Shell-Scripts with if-else statements, While, For and Until loop.**

Sample Programs on Shell Scripting:

- Write a program to print "Hello World".
- Write a program to interchange the value of two variables.
- Write a program on Shell Script Arguments.
- Write a program using 'expr' for integer arithmetic
- Write a program to enter five numbers and find the MAX number.
- Write a Shell program to check and display 10 leap years.
- Write a Shell program to find the area and circumference of a circle.
- Write a Shell program to check the given number and its reverse are same.
- Write a Shell program to check the given string is palindrome or not.
- Write a Shell program to find the sum of odd and even numbers from a set of numbers.
- Write a Shell program to find the roots of a quadratic equation.
- Write a Shell program to check the given integer is Armstrong number or not.
- Write a Shell program to execute various UNIX commands using case statements set of numbers.
- Write a Shell program to display student grades.
- Write a Shell program to find the sum of two numbers using function programming.

03/06/2024

B.Sc. CS Semester – IV (Second Year)

Subject Title   :   **Programming in Python**
Subject Code   :   **CSM210-2C**
Subject Type   :   **Major**

Rationale:

This course is aimed at offering the fundamental concepts of Python scripting language to the students. It starts with the basics of Python programming and deals with lists, dictionaries, functions, exceptions. This course also provides the brief overview of numerical, data analysis and visualization functions.

Learning Outcomes:

- Understand the basic terminology used in computer programming to write, compile and debug programs in Python programming language.
- Use different data types to design programs involving decisions, loops, and functions.
- To be able to understand the various data structures available in Python programming language and apply them in solving computational problems.
- Handle the exceptions which are raised during the execution of Python scripts.
- Knowledge about Installation and uses of data analysis and visualization packages

Teaching and Evaluation Scheme:

Credit	Duration in Hours		Maximum Marks		
	Theory	**Practical**	**CCE (Formative)**	**SEE (Summative)**	**Total**
4	30	60	50	50	100

Course Content

Unit I   **[Weightage=25% approx., Lectures=7, Practicals= 14]**

Introduction to Python: Python Features, Structure of a Python Program, PVM, Environment Setup

Basics: keywords, variables, data types, operators, input and output

Control statements: Conditional and looping

String and Character: Basic Operations, Slicing, Functions and Methods

Functions: definition, function call, parameters, default parameter, non-default parameter, keyword arguments, non-keyword arguments, arbitrary arguments, return statements, global and local variables

Unit II   **[Weightage=25% approx., Lectures=8, Practicals= 16]**

Data Collections: List, Tuple, Sets, Dictionary

List: Accessing, Slicing, negative indices, reassigning, deleting, concatenation, membership, iteration, built in Function

Tuple: packing and unpacking, single item and multiple item Tuple, Accessing, Slicing, negative indices, deleting, reassigning, built in Function

Sets: Create set, iteration, set methods, set operators, union sets Frozen sets

Dictionary: Creating Dictionary, Mixes Keys, Accessing, reassigning, deleting, built in Function, membership

Lambda Function: anonymous functions, filter(), map(), reduce()

Unit III   **[Weightage=25% approx., Lectures=7, Practicals= 14]**

Regular Expressions: Introduction and syntax, Match(), Search(), sub(),findall()

Advanced concept: iterator, generator, closure, decorators, property

Exception Handling: Need for Exception handling, Raising exceptions, Errors in a Python Program (Compile-Time Errors, Runtime Errors, Logical Errors), NameError, IndexError, TypeError, ImportError, ValueError

Classes and object-Oriented Programming, Abstract data type and classes, Inheritance, Encapsulation and Information Hiding

Unit IV   **[Weightage=25% approx., Lectures=8, Practicals= 16]**

Exploratory Data Analysis:

Statistics and Probability using NumPy: Creation of vectors and matrices, Matrix manipulation

Data Manipulation and Exploratory Data Analysis with Pandas: Introduction to Pandas, Loading a dataset into a DataFrame

Basic data visualization: Introduction to Matplotlib package, Scatter plot, Line plot, Bar chart, Histogram, Box plot

Text Books:

- Al Sweigart, "Automate the Boring Stuff with Python", William Pollock, 2015, ISBN: 978-1593275990.

- "Python for Data Analysis", Wes McKinney, "O'Reilly Media, Inc.", 2022

- R. Nageswara Rao, "Core Python Programming", dreamtech 3. Wesley J. Chun. "Core Python Programming - Second Edition", Prentice Hall

Reference Books:

- John V Guttag. "Introduction to Computation and Programming Using Python", Prentice Hall of India
- R. Nageswara Rao, "Core Python Programming", dreamtech
- Wesley J. Chun. "Core Python Programming - Second Edition", Prentice Hall
- Kenneth A. Lambert, "Fundamentals of Python – First Programs", CENGAGE Publication

Practical List

- Introduction to Python Editors like IDE, Jupyter, Google Colab etc.
- Introduction to basic operations in python.
- Develop programs to understand the control structures of python.
- Develop programs to understand the User-Defined functions with different types of arguments
- Develop programs to learn string and lists in python.
- Develop programs to learn Dictionaries, Tuples and sets in python.
- Develop programs to use Lambda and advanced functions.
- Develop programs to understand working of exception handling and assertions.
- Introduction to data science using NumPy and panda packages in python
- Learn to plot different types of graphs using Matplotlib

03/06/2024

B.Sc. CS Semester – IV (Second Year)

Subject Title : **Full Stack Development**
Subject Code : **CSE203-2C**
Subject Type : **Minor**

Learning Outcomes:

The aim of this subject is to get broad understanding of Full-stack development and fulfill the industry's need for versatile professionals who can handle both frontend and backend development. By utilizing a single programming language (JavaScript) across the entire stack, development processes are streamlined, reducing overhead and improving productivity.

Learning Outcomes:

Student will be able to

- Proficiency in frontend technologies (JavaScript Frameworks).
- Gain Knowledge about the front end and back end Tools
- Competence in MongoDB
- Develop a fully functioning website and deploy on a web server.
- Ability to create and consume APIs.
- Experience with deployment and version control systems

Teaching and Evaluation Scheme:

Credit	Duration in Hours		Maximum Marks		
	Theory	Practical	CCE (Formative)	SEE (Summative)	Total
4	30	60	50	50	100

Course Content
Unit I [Weightage=25% approx., Lectures=7, Practicals= 16]

Bootstrap Framework: Introduction and use, Bootstrap CSS & JS, Bootstrap Image Slider, Bootstrap Menus, Bootstrap Components (Model Form)

JSON: JSON Introduction, Data Types, Parse, Stringify, Objects, Arrays, Server

AJAX: XMLHttpRequest, Ajax get and post, Ajax Send, Ajax on readystate, Fetch JSON data through Ajax, Fetch API data through Ajax

Unit II   **[Weightage=25% approx., Lectures=7, Practicals= 14]**

jQuery: jQuery Introduction, jQuery Selectors, jQuery Events, jQuery HTML, jQuery CSS, jQuery Animation,   Conflict with jQuery, Customized jQuery Apps, jQuery Menus, jQuery Image Slider, jQuery Accordions & Collapsible, Scrolling Contents User Interface Designing using jQuery, jQuery UI Library, jQuery Plugins

ReactJS: Introduction, Templating using JSX, Components, State, and Props, Lifecycle of Components, Rendering List and Portals, Error Handling, Routers, Redux and Redux Saga, Immutable.js, Service Side Rendering, Unit Testing, Webpack

Unit III   **[Weightage=25% approx., Lectures=8, Practicals = 16]**

NodeJS: Nodejs Overview, Nodejs – Basics and Setup, Node js Console, Node js Command Utilities, Nodejs Modules, Nodejs Concepts, Nodejs Events, Node js with Express js, Node js Database Access

AngularJS: Installation to Angular JS, What is MVC Architecture, Angular JS Directives, Angular JS Controllers, Agular Form Validation, Angular JS Filters, Angular JS Module

Unit-IV   **[Weightage=25% approx., Lectures=8, Practicals= 14]**

MongoDB: SQL and NoSQL Concepts, Create and Manage MongoDB, Migration of Data into MongoDB, MongoDB with PHP, MongoDB with NodeJS, Services Offered by MongoDB

Web services: Introduction to web service, Introduction to JSON, creating web service, Consuming web service, JSON parsing

Reference Books:

- Web Design with HTML, CSS, JavaScript and jQuery Set Book by Jon Duckett Professional JavaScript for Web Developers Book by Nicholas C. Zakas
- Full Stack JavaScript: Learn Backbone.js, Node.js and MongoDB. By BYAZAT MARDAN
- Full-Stack JavaScript Development by Eric Bush.
- Mastering Full Stack React Web Development Paperback by TomaszDyl , Kamil Przeorski , Maciej Czarnecki

Practical List:

- Write jQuery code to select DOM elements by ID, class, or tag name and manipulate their attributes, content, and styles dynamically.

- Implement client-side form validation using jQuery to validate user input before submitting a form to the server. Provide feedback to users about validation errors.

- Set up a development environment for ReactJS using tools like Create React App or manually configure Webpack and Babel.

- Implement event handlers in React components to respond to user interactions such as clicks, form submissions, and keyboard inputs.

- Create forms in React and manage form state using controlled components to capture user input.

- Use fetch to make API requests and fetch data asynchronously in React components.

- Write unit tests for React components using Jest and React Testing Library to ensure code reliability and maintainability.

- Install Node.js and set up your development environment. Practice creating and running simple Node.js scripts.

- Building a Simple Server: Create a basic HTTP server using the built-in http module in Node.js. Serve static files and handle HTTP requests and responses.

- Implement custom middleware functions in Express.js to perform tasks such as authentication, logging, error handling, or request/response manipulation.

- Create Angular components to represent different parts of your application's user interface, such as header, footer, sidebar

- Create custom directives in Angular to extend HTML with new behavior or modify the behavior of existing elements.

- Design and create MongoDB schemas for different types of data, considering factors like data relationships, indexing, and performance optimization.

- Insert sample data into MongoDB collections and practice querying data using the MongoDB query language (MongoDB Query API).

03/06/2024

B.Sc. CS Semester – IV (Second Year)

Subject Title   :   **Personality Development**
Subject Code   :   **AEC213-2C**
Subject Type   :   **AEC**

Course objectives:

* To help develop an awareness of the concept of personality and its aspects
* To enable the learners to gain clarity of their own skills and abilities as professionals
* To instil an understanding of how one can develop certain traits of personality as perthe requirement of one's professional field

Learning Outcomes

* To help students gain an idea of Personality and various aspects
* To help analyse the personality so as to gain clarity about their future careers
* To generate a neutral understanding of human relations especially in terms of profession
* To enable to use the clarity for the real-life situations
* To help gain some personal attributes that enhance the professional competence

Teaching and Evaluation Scheme :

Subject Code	Subject Title	Teaching Scheme Theory Per Week	Credits	Hrs.	Examination Scheme Max Marks CCE	Examination Scheme Max Marks SEE	Total Marks
AEC 213-2C	Personality Development	2	2	2	25	25	50

Course Content

Unit	Content	Total Hours	Weightage
1.	**Basics of Personality Development**		
1.1.	Concept of personality [Introduction, Definitions and general meaning]	3	30% 07 MARKS
1.2.	Personality Analysis Method-Types, self-assessment and implications for working on limitations	3	
1.3.	SWOT analysis [Introduction, Meaning, Benefits of SWOT analysis, Grid (Framework) of SWOT	2	
1.4.	Johari window	1	

23/06/2024

2.		**Interpersonal Skills**		
2.1.		Forms of Communication	1	
2.2.		Interpersonal communication-definition and three uniqueattributes	1	
		Personality traits to develop for good interpersonal skills(7 traits)		
2.3.		Teamwork: Importance of team work, collaboration VS silo building, five points of importance of team work, diverse and dispersed teams	2	**30% 08 MARKS**
		Features of a good team worker/leader	1	
		Adaptability- Culture and communication: defining culture and understanding cultural communication. some related terms- globalization, culture, intercultural communication, co-culture, cultural shock, cultural context, high-context and low context culture	2	
		Five categories of cultural values	1	
		Barriers to bridging differences and adapting to others, and strategies to deal with them	1	
3.		**Personal Attributes**		
3.1.		Change management- a case study and test	1	
		Physical-emotional reactions to change, attitudes that hinder change, the change implementation model	2	
3.2.		Motivation, Goal setting and self-esteem -case study, questionnaire, Impact of values and attitudes, how one gets motivated step by step, characteristics of attainable goals, worksheets, ten ways to increase self-motivation, case study discussion.	4	**40% 10 MARKS**
3.3.		Time management: Case study, definition, symptoms of problems in time management	1	
		steps-planning prioritizing, estimating, documenting, tracking	1	
		Barriers in time management	1	
3.4.		Creative thinking: what it is, components, strategies and case study.	2	

Reference Books:
- Personality Development and soft skills, By: Barun Mitra, Oxford university press
- Cornerstone book of Developing Soft Skills, Pearson Publication By: Robert Sherfield, Rhonda Montgomery, and Patricia Moody
- Soft Skills: Know yourself and Know the World By: Dr. K. Alex, S. Chand and Company Publications
- Personality Traits By: Gerald Matthews, Ian J. Deary, Martha C. Whiteman, Cambridge University Press
- Communication Skills By Sanjay Kumar and Pushpa Lata, Oxford University Press publication
- Communication: Principles for a Lifetime, By: Steven Beebe, Susan Beebe and Diana Ivy, Pearson Publication
- Technical Communication: Process and product, By: Gearson and Gearson, Pearson Publication
- The Ace of Soft Skills: Attitude, Communication and Etiquettes for Success By: G. Ramesh Pearson Publication

03/06/2025

B.Sc. CS Semester – IV (Second Year)

Subject Title : **Project- IV**
Subject Code : **SEC244-2C**
Subject Type : **SEC**

Rationale:

The project development as a subject will help them to learn and understand the applications of the concept which they are learning from different subjects in the semester. Student must gain the knowledge about the applications of the fundamentals and also learn the technology trends and develop their skills on those technologies during project development.

Learning Outcomes:

Students will be able develop their skills in analysis, design, development, testing and implementation through the development of small application.

Teaching and Evaluation Scheme:

Credit	Duration in Hours		Maximum Marks		
	Theory	Practical	CCE (Formative)	SEE (Summative)	Total
2	-	60	25	25	50

Course Content

The project aims to develop Web applications utilizing web technologies and databases. By focusing on Project work, students can gain valuable practical experience and skills that are directly applicable to their future careers in software development, web development, database administration, and related fields.

Project report shall be submitted including following details:

- Project Title
- Group Details
- Project Domain
- Project Definition
- Project Overview
- Detail Explanation
- Future Enhancement
- References

Note: Project will be evaluated based on Presentation / Live Project Demonstration.

03/06/2024

B.Sc. CS Semester – IV (Second Year)

Subject Title : **Disaster Management**
Subject Code : **VAC207-2C**
Subject Type : **VAC**

Rationale:

To learn about the area of environment science with selection of elective paper. This paper is designed to enable students to acquire basic understanding of the environment, environmental disasters and its management. It also provides information about mitigation methodology for the environmental disasters. It also gives information about psychological health and mental therapies and social awareness.

Learning Outcomes:

The students will learn about the basic concepts of disaster management.

Teaching & Evaluation Scheme:

The objective of evaluation is not only to measure the performance of students, but also to motivate them for better performance. Students are evaluated on the basis of their regular attendance in classroom & external (24 marks) university examination.

Teaching and Evaluation Scheme:

Credit	Duration in Hours		Maximum Marks		
	Theory	**Practical**	**CCE (Formative)**	**SEE (Summative)**	**Total**
2	30	-	25	25	50

Course Content

Unit I   **[Weightage=50% approx., Lectures=15]**

Introduction Disaster: Understanding the concepts and definitions of Disaster - 2hrs

General concepts of disaster : Hazard, Vulnerability, Risk - 4hrs

Introduction, Primary concept, approaches to disaster risk reduction for disaster management-3 hrs

Various steps during pre-disaster management : Risk Assessment and Analysis - 3hrs

Unit II   **[Weightage=50% approx., Lectures=15]**

Management during disaster and post disaster: Types, Trends, Causes, Consequences and Control of Geological Disasters (earthquakes, landslides, tsunami); Hydro Disasters (floods); biological disaster (forest fire); technical disaster (chemical, nuclear); global disasters trends (climate change and urban disasters)

Reference Books:

- Modi C D & others (2006) Paryavaran and AapattiVyavasthapan [Gujarati], Swami prakashan, Patan- 384265

- Patel J C (2006) Paryavaran and disaster management [Gujarati], Parshwa publication, Ahmedabad-380001

- ErachsBharucha(2008,firstedition)ParyavaranAdhyayan[Gujarati],Orient Longman Pvt. Ltd., Hyderabad.

- Distributor: M/S Himanshu book company, 06-07 Shri JayendrapuriBhavan, Ellisbridge, New Sanyas Ashram, Ahmedabad – 380 006.

- K RamanaMurthi, 2004 Disaster Management, Dominant Publishersand Di stributors, New Delhi -110002