BUDHA DAL PUBLIC SCHOOL, PATIALA
LESSON PLAN OF CLASS X (SUBJECT: INFORMATION TECHNOLOGY 402)
Syllabus of Term –I/Term-II/Pre-Board & Final Exam (Session 2025-26)

<mark>Month Wise Distribution</mark>

<mark>April</mark>

Part-A

Unit-I (Communication Skills-II)

Part-B

Unit-I (Digital Documentation (Advanced))

<mark>May</mark>

Part-A

Unit-II(Self-Management Skills-II)

Part-B

Unit-II (Electronic Spreadsheet (Advanced))

<mark>July</mark>

Part-B

Unit-II (Electronic Spreadsheet (Advanced)) **Continue..**

<mark>August</mark>

Part-A

Unit-III (Information & Communication Technology Skills-II)

Unit-IV (Entrepreneurial Skills-II)

Part-B

Unit-IV (Web Application & Security)

<mark>September</mark>

Term-I Exam

<mark>October</mark>

Part-A

Unit-V (Green Skills-II)

Part-B

Unit- III Database Management System

<mark>November</mark>

Revision of Term-II Syllabus & Practical Examination

<mark>December</mark>

Term – II Exam

Pre – Board Exam

Revision of Final Exam

Final Exam

Periodic -I Syllabus

Part-A
Unit-I (Communication Skills-II)

Part-B
 Unit-I (Digital Documentation (Advanced))

Term –I Syllabus

Part-A
Unit-I (Communication Skills-II)

Unit-II(Self-Management Skills-II)

Unit-III (Information & Communication Technology Skills-II)

Part- B
Unit-I (Digital Documentation (Advanced))

Unit-II (Electronic Spreadsheet (Advanced))

Term –II Syllabus

Part-A
Unit-IV (Entrepreneurial Skills-II)

Unit-V (Green Skills-II)
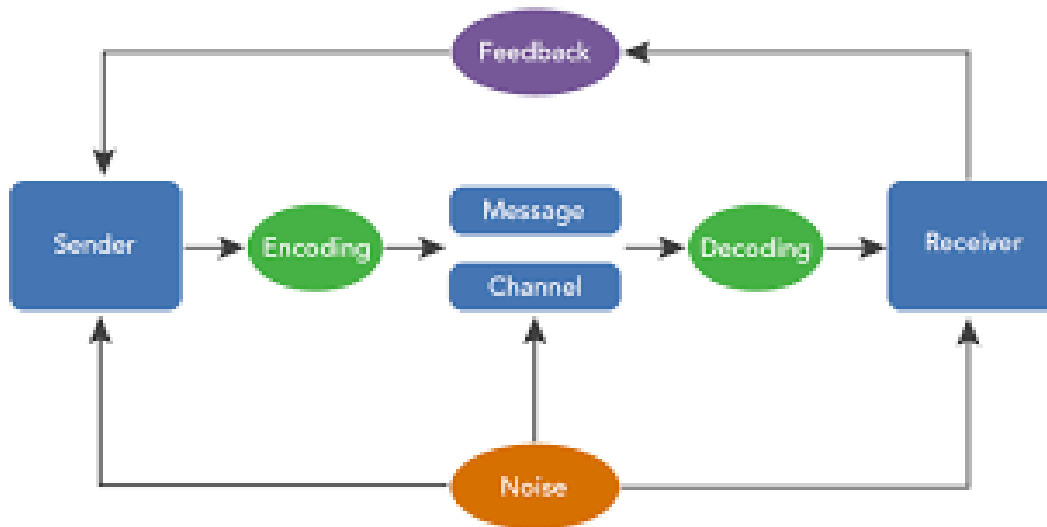
Part-B
Unit- III Database Management System

Unit-IV (Web Application & Security)

Lesson-Plan

April – Part A: Unit-I (Communication Skills-II)

- **Topics:**
    - Advanced Communication Techniques
    - Interpersonal Skills
    - Presentation Skills
    - Negotiation and Conflict Resolution
    - Cross-Cultural Communication

- **Learning Objectives:**
    - Master advanced communication techniques.
    - Develop strong interpersonal skills.
    - Enhance presentation, negotiation, and conflict resolution skills.
    - Understand cross-cultural communication dynamics.

- **Art & Integrated Activity/Project/Practical:**
   - Role-playing exercises for negotiation and conflict resolution.
    - Group presentations on advanced communication topics.
    - Case studies on cross-cultural communication challenges.
    - Mock negotiations and presentations.

- **Expected Learning Outcomes:**
    - Students will master advanced communication techniques.
    - They will develop strong interpersonal and presentation skills.
    - Students will effectively negotiate and resolve conflicts.

- o They will understand and navigate cross-cultural communication.
- **Assignment and Assessments/Test:**
  - o Assignments on advanced communication skills and techniques.
  - o Quizzes on interpersonal skills and negotiation strategies.
  - o Practical tests on presentations and cross-cultural scenarios.
- **Remedial Measures:**
  - o Extra practice sessions and role-playing scenarios.
  - o Video tutorials on advanced communication topics.
  - o Personalized feedback and coaching on specific challenges.
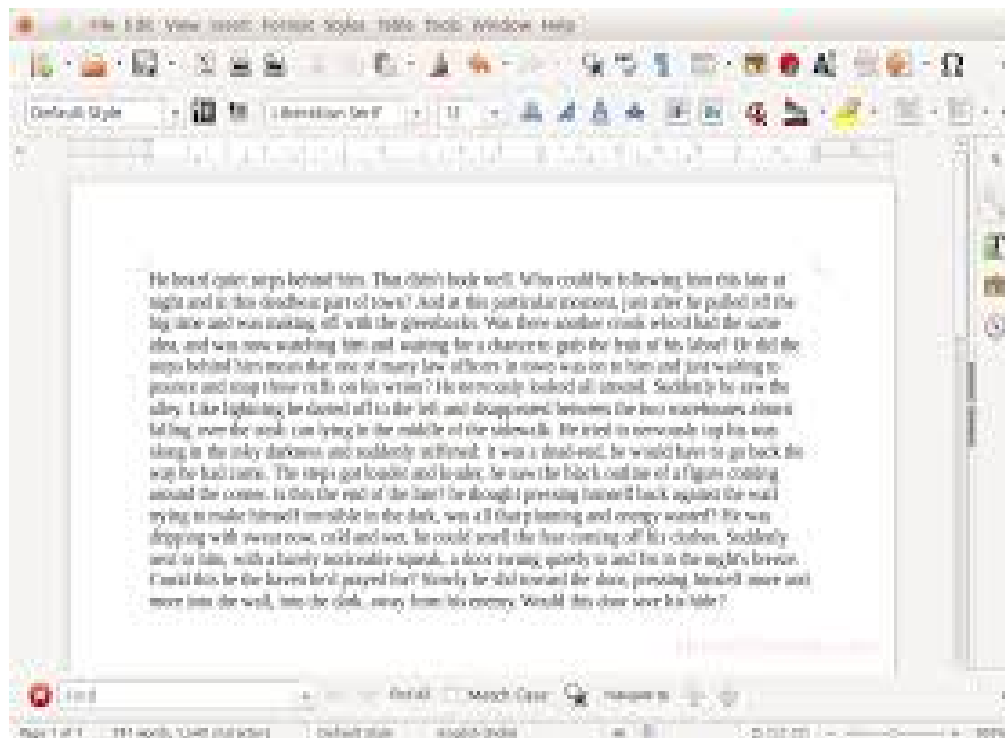
- **Topics:**
  - o Advanced Document Formatting and Styles
  - o Collaborative Editing and Reviewing
  - o Automation in Document Creation
  - o Advanced Data Integration and Charts
  - o Document Security and Permissions
- **Learning Objectives:**
  - o Master advanced document formatting techniques and styles.
  - o Learn collaborative editing and reviewing processes.

- o Automate document creation using advanced tools.

- o Integrate data and create advanced charts in documents.

- o Understand document security measures and permissions.

- **Art & Integrated Activity/Project/Practical:**

  - o Hands-on projects on advanced document formatting and styles.

  - o Collaborative editing exercises with version control.

  - o Automation projects using macros and templates.

  - o Data integration and advanced chart creation tasks.

- **Expected Learning Outcomes:**
  - o Students will master advanced document formatting and styles.
  - o They will effectively collaborate on document editing and reviewing.
  - o Students will automate document creation processes.
  - o They will integrate data and create advanced charts in documents.
  - o Students will understand document security measures.
- **Assignment and Assessments/Test:**
  - o Assignments on advanced document creation and formatting.
  - o Quizzes on collaborative editing and data integration.
  - o Practical tests on automation and document security.
- **Remedial Measures:**
  - o Extra practice sessions and step-by-step guides on advanced document tools.
  - o Video tutorials on collaborative editing and data integration.
  - o Personalized feedback and one-on-one assistance for specific challenges.

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May – Part A: Unit-II (Self-Management Skills-II)

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- **Topics:**

  - o Advanced Goal Setting and Time Management Techniques

  - o Stress and Emotional Management

  - o Leadership Skills Development

  - o Decision Making and Problem Solving

  - o Personal Development Planning

- **Learning Objectives:**

  o Master advanced techniques in goal setting and time management.

  o Develop stress and emotional management strategies.

  o Enhance leadership skills and decision-making abilities.

  o Plan for personal development and career growth.

- **Art & Integrated Activity/Project/Practical:**

  o Goal setting workshops with advanced techniques.

  o Stress management exercises and emotional intelligence assessments.

  o Leadership role-playing and problem-solving scenarios.

  o Personal development planning and career mapping activities.

- **Expected Learning Outcomes:**

  o Students will master advanced goal setting and time management techniques.

  o They will develop effective stress and emotional management strategies.

  o Students will enhance leadership skills and decision-making abilities.

  o They will plan for personal development and career growth effectively.

- **Assignment and Assessments/Test:**

  o Assignments on advanced goal setting and leadership skills.

  o Quizzes on stress management and decision-making processes.

  o Practical tests on personal development planning.

- **Remedial Measures:**

  o Extra practice sessions and workshops on advanced self-management techniques.

  o Video tutorials on leadership development and emotional intelligence.

  o Personalized coaching and feedback for improvement.

May – Part Unit-II (Electronic Spreadsheet - Advanced)
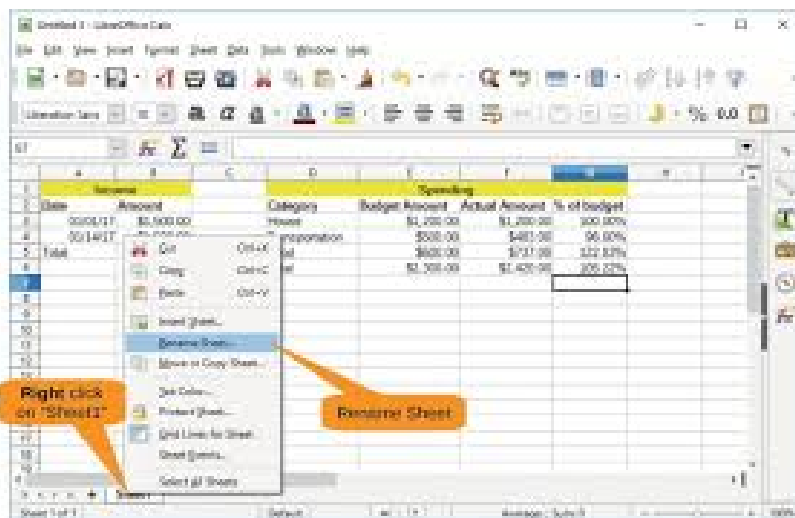
- **Topics:**
    - Advanced Spreadsheet Functions and Formulas
    - Data Analysis with PivotTables and Power Query
    - Advanced Charting and Graphical Representations
    - Spreadsheet Automation and Macros
    - Collaboration and Version Control

- **Learning Objectives:**
    - Master advanced functions and formulas in spreadsheets.
    - Analyze data using PivotTables and Power Query.
    - Create advanced charts and graphical representations.
    - Automate tasks using macros and advanced spreadsheet tools.
    - Understand collaboration features and version control in spreadsheets.

- **Art & Integrated Activity/Project/Practical:**
    - Projects on advanced spreadsheet functions and data analysis.
    - Data visualization tasks using advanced charts and graphs.
    - Automation projects with macros and advanced tools.
    - Collaborative editing and version control exercises.

- **Expected Learning Outcomes:**
    - Students will master advanced functions and formulas in spreadsheets.
    - They will analyze data effectively using PivotTables and Power Query.
    - Students will create advanced charts and graphical representations.
    - They will automate tasks using macros and advanced tools.
    - Students will understand collaboration features and version control.

- **Assignment and Assessments/Test:**
  - Assignments on advanced spreadsheet functions and data analysis.
  - Quizzes on PivotTables, macros, and collaboration features.
  - Practical tests on creating advanced charts and automating tasks.
- **Remedial Measures:**
  - Extra practice sessions and step-by-step guides on advanced spreadsheet tools.
  - Video tutorials on PivotTables, macros, and data visualization.
  - Personalized feedback and one-on-one assistance for specific challenges.

Lesson Plan: Part B - Subject Specific Skills Unit-II (Electronic Spreadsheet - Advanced) Continued

- **Topics:**
  - Advanced Data Validation and Conditional Formatting
  - Scenario Analysis and What-If Analysis
  - Database Integration and External Data Connections
  - Advanced Functions for Financial Modeling
  - Security and Protection in Spreadsheets
- **Learning Objectives:**
  - Master advanced data validation and conditional formatting techniques.
  - Conduct scenario and what-if analysis using spreadsheets.
  - Integrate databases and external data connections.
  - Use advanced functions for financial modeling and analysis.
  - Implement security measures and protection in spreadsheets.
- **Art & Integrated Activity/Project/Practical:**
  - Projects on advanced data validation and scenario analysis.
  - Integration tasks with databases and external data sources.
  - Financial modeling exercises using advanced functions.
  - Security and protection simulations in spreadsheet environments.
- **Expected Learning Outcomes:**
  - Students will master advanced techniques in data validation and formatting.
  - They will conduct thorough scenario and what-if analyses.
  - Students will integrate databases and external data effectively.
  - They will use advanced functions for financial modeling.
  - Students will implement security measures in spreadsheet environments.

- **Assignment and Assessments/Test:**

  o Assignments on data validation, scenario analysis, and financial modeling.

  o Quizzes on database integration and security measures.

  o Practical tests on scenario analysis and data integration.

- **Remedial Measures:**

  o Extra practice sessions and simulations on advanced spreadsheet techniques.

  o Video tutorials on scenario analysis and database integration.

  o Personalized feedback and one-on-one assistance for specific challenges.

- **Topics:**

  o Advanced Data Validation and Conditional Formatting

  o Scenario Analysis and What-If Analysis

  o Database Integration and External Data Connections

  o Advanced Functions for Financial Modeling

  o Security and Protection in Spreadsheets

- **Learning Objectives:**

  o Master advanced data validation and conditional formatting techniques.

  o Conduct scenario and what-if analysis using spreadsheets.

  o Integrate databases and external data connections.

  o Use advanced functions for financial modeling and analysis.

  o Implement security measures and protection in spreadsheets.

- **Art & Integrated Activity/Project/Practical:**

  o Projects on advanced data validation and scenario analysis.

  o Integration tasks with databases and external data sources.

  o Financial modeling exercises using advanced functions.

  o Security and protection simulations in spreadsheet environments.

- **Expected Learning Outcomes:**

  o Students will master advanced techniques in data validation and formatting.

  o They will conduct thorough scenario and what-if analyses.

  o Students will integrate databases and external data effectively.

  o They will use advanced functions for financial modeling.

  o Students will implement security measures in spreadsheet environments.
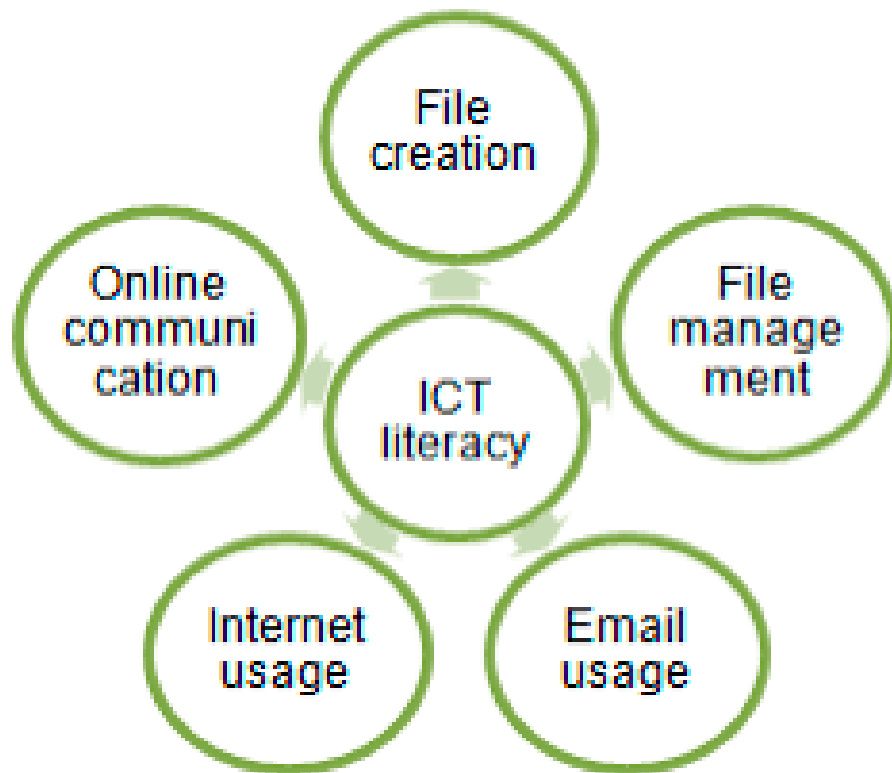
- **Assignment and Assessments/Test:**

    o Assignments on data validation, scenario analysis, and financial modeling.

    o Quizzes on database integration and security measures.

    o Practical tests on scenario analysis and data integration.

- **Remedial Measures:**

    o Extra practice sessions and simulations on advanced spreadsheet techniques.

    o Video tutorials on scenario analysis and database integration.

    o Personalized feedback and one-on-one assistance for specific challenges.

August:- Part-A Unit III: Information & Communication Technology Skills II

- **Topics:**
  Computer Operations

  Basic File Operations

  Care and Maintenance of a Computer System

  Security and Privacy of a Computer System

Database Security and Backup Strategies

- **Learning Objectives:**

  Understand fundamental computer operations and their significance.

  Perform basic file operations efficiently.

  Apply proper care and maintenance techniques for a computer system.

  Implement security and privacy measures to protect computer systems.

  Understand database security and apply backup strategies effectively.

- **Art & Integrated Activity/Project/Practical:**

  Hands-on practice with basic file operations such as creating, renaming, deleting, and organizing files.

  Practical exercises on troubleshooting common computer maintenance issues.

  Simulations on setting up firewalls, antivirus software, and privacy settings.

  Projects on creating structured database backup and restoration plans.

  Group discussions and case studies on cybersecurity threats and countermeasures.

- **Expected Learning Outcomes:**

  Students will be proficient in performing essential computer operations.

  They will effectively manage and organize files and folders.

  Students will apply best practices for computer maintenance and longevity.

  They will implement security measures to safeguard personal and organizational data.

  Students will gain knowledge of database security and backup techniques.

- **Assignment and Assessments/Test:**

  Assignments on file management and computer maintenance best practices.

  Quizzes on computer security, privacy, and database protection strategies.

  Practical assessments on configuring security settings and performing data backups.

 Case study analysis on real-world cyber threats and preventive measures.

- **Remedial Measures:**

  Additional hands-on practice sessions on file operations and system maintenance.

  Video tutorials on cyber security, privacy, and database backup techniques.

  One-on-one guidance for students facing challenges in understanding security concepts.

Part-B Unit IV: Web Application & Security
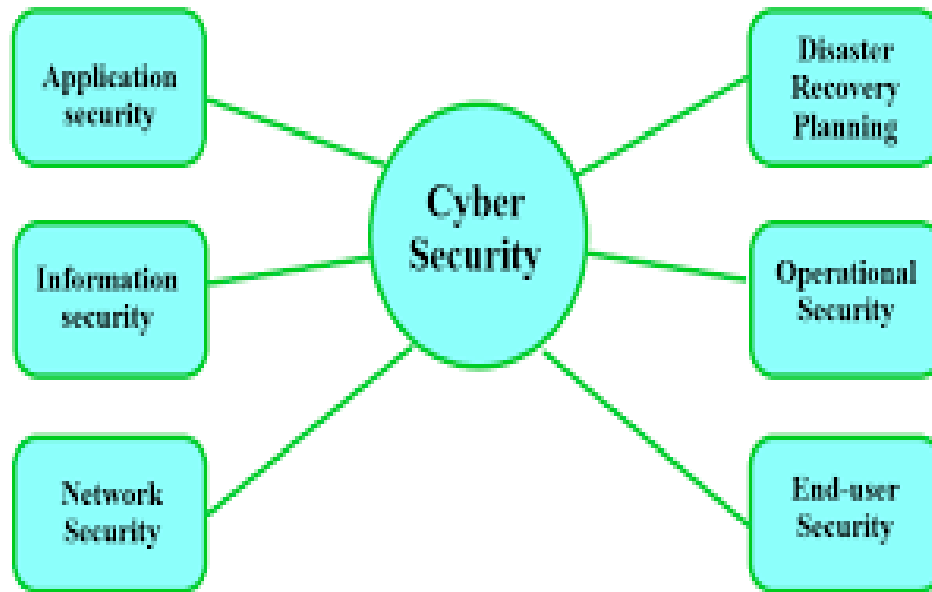
Topics

- Maintain Workplace Safety
- Prevent Accidents and Emergencies
- Protect Health and Safety at Work

Learning Objectives

- Students will Understand principles of workplace safety and emergency preparedness.
- Learn to prevent accidents and respond effectively to emergencies.
- Develop awareness of health hazards in the workplace and methods to mitigate risks.

Expected Learning Outcomes

- By the end of Unit IV, students will demonstrate knowledge of workplace safety protocols and emergency procedures.
- Apply preventive measures to minimize accidents and ensure safety at work.
- Understand the importance of health protection in maintaining a safe and productive work environment.

Assessment &Test(Part-A Unit III):

- Quizzes on computer operations and file management.
- Practical tests evaluating maintenance tasks and security practices.

Assessment &Test

- Quizzes on workplace safety regulations and emergency protocols.
- Practical tests evaluating application of safety measures in simulated scenarios.

Remedial Measures

- Review sessions focusing on specific safety protocols and emergency responses.
- Guidance from instructors to address individual concerns related to health and safety at work.

September

Term-I Exams

October – Part A Unit-V (Green Skills-II)

Part A Unit-V (Green Skills-II)

- **Topics:**
    - o Advanced Green Technologies
    - o Sustainable Development Practices
    - o Green Energy Solutions
    - o Environmental Policy and Regulations
    - o Green Marketing and Consumer Awareness
- **Learning Objectives:**
    - o Master advanced green technologies and sustainable practices.
    - o Understand green energy solutions and their implementation.

- o Analyze environmental policies and regulatory frameworks.
- o Learn green marketing strategies and promote consumer awareness.

- **Art & Integrated Activity/Project/Practical:**
  - o Projects on implementing green technologies in practical scenarios.
  - o Case studies on sustainable development and green energy projects.
  - o Simulations on environmental policy formulation and compliance.
  - o Green marketing campaigns and consumer awareness projects.

- **Expected Learning Outcomes:**
  - o Students will master advanced green technologies and sustainable practices.
  - o They will understand green energy solutions and their applications.
  - o Students will analyze environmental policies and regulatory frameworks.
  - o They will develop green marketing strategies and promote consumer awareness.

- **Assignment and Assessments/Test:**
  - o Assignments on green technologies, sustainable development, and policies.
  - o Quizzes on green energy solutions and environmental regulations.
  - o Practical tests on green marketing strategies and consumer awareness.

- **Remedial Measures:**
  - o Extra practice sessions and hands-on projects on green technologies.
  - o Video tutorials on sustainable development and green marketing.
  - o Personalized feedback and one-on-one assistance for specific challenges.

Part B Unit-III (Database Management System)

- **Topics:**
  - o Advanced Database Design and Architecture
  - o Data Modeling and Normalization
  - o Query Optimization and Performance Tuning
  - o Transaction Management and Concurrency Control
  - o Database Security and Backup Strategies

- **Learning Objectives:**
  - o Master advanced database design principles and architecture.
  - o Implement data modeling techniques and normalization processes.
  - o Optimize queries and tune database performance.
  - o Manage transactions and control concurrency effectively.
  - o Implement database security measures and backup strategies.

- **Art & Integrated Activity/Project/Practical:**
  - Database design projects with advanced architecture considerations.
  - Data modeling exercises and normalization simulations.
  - Query optimization tasks and performance tuning labs.
  - Transaction management and concurrency control simulations.

- **Expected Learning Outcomes:**
  - Students will master advanced database design principles and architecture.
  - They will implement effective data modeling and normalization techniques.
  - Students will optimize queries and tune database performance efficiently.
  - They will manage transactions and control concurrency effectively.
  - Students will implement database security measures and backup strategies.

- **Assignment and Assessments/Test:**
  - Assignments on database design, query optimization, and security strategies.
  - Quizzes on data modeling, transaction management, and concurrency control.
  - Practical tests on database performance tuning and backup strategies.

- **Remedial Measures:**
  - Extra practice sessions and hands-on labs on advanced database topics.
  - Video tutorials on query optimization and transaction management.
  - Personalized feedback and one-on-one assistance for specific challenges.

November
　　Revision of Term-2 Syllabus& Practical Examination
December
　　Term – 2 Examinations
January
　　 Pre – Board Examination
February
　　Revision of Final Exams
March
　　Final Exam