Name of the Program: BACHELOR OF COMMERCE (BDA)
Course Code: B.Com. BDA 4.1
Name of the Course: ADVANCED CORPORATE ACCOUNTING

COURSE CREDITS	NO. OF HOURSPER WEEK	TOTAL NO. OF TEACHING HOURS
4 CREDITS	4 HOURS	56 HOURS

Pedagogy: Classroom Lecture, Tutorials, Group discussion, Seminar, Case Studies, Field Work etc.

Course Outcomes: On successful completion of the course, the students will be able to

a. Know the procedure of Redemption of Preference Shares and Debentures.
b. Comprehend the different methods of Amalgamation and Acquisition of Companies.
c. Understand the process of Internal reconstruction.
d. Understand the process of Liquidation of Companies.
e. Prepare the liquidators Final statement of accounts.

SYLLABUS:	HOURS
Unit-1: Redemption of Preference Shares	**08**
Meaning – Legal Provisions – Treatment of premium on redemption – creation of Capital Redemption Reserve Account– Fresh issue of shares – Arranging cash balance for the purpose of redemption – minimum number of shares to be issued for redemption – issue of bonus shares – preparation of Balance sheet after redemption (As per Schedule III of Companies Act 2013).	
Unit- 2: Redemption of Debentures	**08**
Meaning – Types of Debentures – Methods of Redemption of Debentures – Lump sum Method, Instalment Method, Sinking Fund Method, Insurance Policy Method (Problems only on Sinking Fund method of Redemption of Debentures)	
Unit-3: Amalgamation and Acquisition of Companies	**14**
Meaning of Amalgamation and Acquisition – Types of Amalgamation – Amalgamation in the nature of Merger – Amalgamation in the nature of Purchase - Methods of Calculation of Purchase Consideration (IND AS - 103), Net asset Method - Net Payment Method and Lumpsum method, Accounting for Amalgamation (Problems under purchase method only) –Ledger Accounts in the Books of Transferor Company and Journal Entries in the books of Transferee Company – Preparation of Balance Sheet after Amalgamation and Acquisition. (As per Schedule III of Companies Act 2013)	
Unit- 4: Internal Reconstruction of Companies	**12**
Meaning of Capital Reduction; Objectives of Capital Reduction; Provisions for Reduction of Share Capital under Companies Act, 2013. Forms of Reduction. Accounting for Capital Reduction. Problems on passing Journal Entries, preparation of Capital Reduction Account and Balance sheet after reduction (Schedule III to Companies Act 2013).	
Unit- 5: Liquidation of Companies	**12**
Meaning of Liquidation, Modes of Winding up – Compulsory Winding up, Voluntary Winding up and winding up subject to Supervision by Court. Order of payments in the event of Liquidation. Liquidator's Statement of Account. Liquidator's remuneration. Problems on preparation of Liquidator's Final Statement of Account.	

Skill Development Activities:

1. List out legal provisions in respect of Redemption of Preference shares.
2. Calculation of Purchase consideration with imaginary figures under Net Asset Method.
3. List out legal provisions in respect of internal reconstruction.
4. Prepare Liquidator's Final Statement of Account with imaginary figures.

BENGALURU CITY UNIVERSITY

Name of the Program: BACHELOR OF COMMERCE (BDA)
Course Code: 4.2
Name of the Course: QUANTITATIVE ANALYSIS FOR BUSINESS DECISIONS-II

COURSE CREDITS	NO. OF HOURSPER WEEK	TOTAL NO. OF TEACHING HOURS
4 CREDITS	4 HOURS	56 HOURS

Pedagogy: Classroom Lecture, Tutorials, Group discussion, Seminar, Case Studies, Field Work etc.

Course Outcomes: On successful completion of the course, the Students will be able to

a. To apply Correlation and Regression for data analysis
b. Do estimation through time series analysis and find the trend
c. To Interpolate and Extrapolate the data
d. To find the association in two variables

SYLLABUS:	**HOURS**
Unit-1: Correlation Analysis	**10**
Correlation – Meaning & Definition - Uses – Types – Interpretation of Correlation, Probable Error – Calculation of Karl Pearson's Coefficient of Correlation (Deviations taken from Arithmetic Mean only) & Spearman's Rank Correlation – Problems when ranks are given, ranks are not given and tied ranks (Excluding Bi-variate and Multiple correlation).	
Unit-2: Regression Analysis	**10**
Meaning, Difference between Correlation and Regression, Regression Equations – X on Y and Y on X using Regression Coefficients- Problems on estimations	
Unit-3: Time Series Analysis	**12**
Meaning, Components of a Time Series; Measurement of trend: Calculation of trend values(Y_c) under Least square method and Moving Average method (3 yearly, 4 yearly and 5 yearly moving averages)	
Unit-4: Interpolation And Extrapolation	**12**
Meaning, Assumptions and uses of Interpolation and Extrapolation. Methods of Interpolation: Binomial expansion method (estimation of One and Two missing Values) and Newton's forward difference method (problems on interpolating with one missing value)	
Unit-5: Association of Attributes	**12**
Classification, Correlation and Association, Types of Association, Comparison of Observed and Expected Frequencies, Yule's Coefficient of Association. Chi-square Test, Assumptions, Degrees of Freedom, Significance level, Test of goodness of fit, Test of Independence – 2x2 Problems.	

Skill Development Activities:

1. Collect statistics on the ranks given by two judges for 10 beauty pageant candidates and compute rank correlation coefficient
2. Calculate 3 yearly moving averages with imaginary values.
3. Fit a Straight Line Trend with Imaginary Figures and show it graphically
4. Calculate the association of any two attributes with imaginary data.

Name of the Program: BACHELOR OF COMMERCE (BDA)
Course Code: B.Com BDA4.3
Name of the Course: RESEARCH METHODOLOGY

COURSE CREDITS	NO. OF HOURS PER WEEK	TOTAL NO. OF TEACHING HOURS
4 CREDITS	4 HOURS	56 HOURS

Pedagogy: Classroom lectures, tutorials, Group discussion, Seminar, Case studies & field work, WBL, literature reviews etc.,

Course Outcomes: On successful completion of the course, the students will be able to

a. Explain the fundamental concepts, scope, and methodologies of business research.
b. Apply appropriate research problem formulation, hypothesis development, and sampling techniques to real-world business scenarios.
c. Analyse collected data using statistical tools and techniques to derive meaningful business insights.
d. Critically evaluate research findings and test hypotheses using appropriate statistical methods.
e. Design and develop a well-structured research report with proper interpretation, visualization, and ethical considerations.

SYLLABUS:	HOURS
Unit 1: Introduction to Business Research	**10**
Research: Meaning, Purpose, Scientific method, types of research; scope of business research. Review of literature: need, purpose, notes taking.	
Unit 2: Research Design	**12**
Selection and formulation of a research problem, formulation of hypothesis, operational definition of concepts, sampling techniques. Research Design: Meaning, nature, process of preparation, components of research design.	
Unit 3: Data Collection and Processing	**12**
Data: Sources of data, methods, of collection; observation interviewing, mailing; tools for collection data; interview schedule, interview guide, questionnaire, rating scale, socio-metry, check list; pre-testing of tools, pilot study. Processing of data; checking, editing, coding, transcription, tabulation, preparation of tables, graphical representation.	
Unit 4: Tools for Data Analysis	**12**
Statistical Techniques: Descriptive Statistics -Mean, Median, Mode, Standard Deviation, Mean Deviation and Quartile Deviation; Inferential Statistics -t-test, Chi-square test and ANOVA & Regression analysis [Meaning and application of each in Business Research]. **Data analysis tools for Social Science Research**: Python, R, SPSS, Tableau and Excel (Concepts and application only)	
Unit 5: Research Reports	**10**
Research Reports- Characteristics of good Research Report, types of reports, style of report writing, Steps in drafting the Report.	

Name of the Program: BACHELOR OF COMMERCE BDA)
Course Code: B.Com. BDA 4.4
Name of the Course: BUSINESS DATA ANALYTICS

COURSE CREDITS	NO. OF HOURSPER WEEK	TOTAL NO. OF TEACHING HOURS
4 CREDITS	4 HOURS	56 HOURS

Pedagogy: Classroom Lecture, Tutorials, Group discussion, Seminar, Case Studies, Field Work etc.

Course Outcomes: On successful completion of the course, the students will be able to

a. Explain the fundamental concepts of Business Data Analytics.
b. Differentiate between quantitative and qualitative analysis techniques.
c. Use analytical tools and techniques to derive insights from data.
d. Interpret analytical results to support business decisions.
e. Develop analytical models for business case studies.

SYLLABUS:	HOURS
Unit No. 1: Introduction to Business Data Analytics	**6**
Definition and Scope of Business Data Analytics, Importance of Data Analytics in Business Decision-Making, Types of Business Analytics: Descriptive, Diagnostic, Predictive, and Prescriptive, Quantitative vs. Qualitative Analysis: Concepts and Differences, Tools for Business Data Analytics (Introduction to Excel, Power BI, and Python) *Practical: Basic operations in Excel and introduction to Power BI dashboards.*	
Unit No. 2: Data Collection, Cleaning, and Visualization	**10**
Sources of Business Data (Primary and Secondary), Data Collection Methods (Surveys, Web Scraping, Transactional Data), Data Cleaning Techniques: Handling Missing Values, Outliers, and Duplicates, Data Visualization Techniques: Charts, Graphs, and Dashboards, Tools for Data Visualization: Excel, Power BI, and Tableau *Practical: Creating dashboards and charts using Excel and Power BI.*	
Unit No. 3: Quantitative Analysis Techniques	**14**
Statistical Analysis: Measures of Central Tendency, Dispersion, and Correlation, Hypothesis Testing: t-tests, Chi-square tests, and ANOVA, Regression Analysis: Simple and Multiple Linear Regression, Time Series Analysis: Moving Averages, Trend Analysis, and Forecasting, Machine Learning Basics: Classification and Clustering Techniques(Theory Only) *Practical: Hands-on exercises in Excel for executing Time series analysis and Regression.*	
Unit No. 4: Qualitative Analysis Techniques	**10**
Understanding Qualitative Data: Text, Images, and Interviews, Sentiment Analysis and Text Mining, Thematic Analysis for Business Insights, Tools for Qualitative Analysis: NVivo, Orange, and Python (NLTK Library) **[Theory Only]**	
Unit 5: Business Applications, Ethics and Data Privacy	**16**

Marketing Analytics: Customer Segmentation, Market Basket Analysis, **Financial Analytics:** Risk Analysis and Fraud Detection, **HR Analytics:** Employee Performance and Retention Analysis, **Supply Chain Analytics:** Demand Forecasting and Inventory Optimization. **[Theory Only];** Ethical Issues in Business Data Analytics, Data Privacy Regulations (GDPR, HIPAA, Indian IT Act)
Skill Developments Activities: 1. Compare and contrast different types of business analytics 2. List and explain commonly used tools for business data analytics with their practical applications. 3. List out the different types of charts used for data visualization and their purposes. 4. Write a note on any one machine learning technique and its application in business analytics.

Name of the Program: BACHELOR OF COMMERCE (BDA)
Course Code: B.Com BDA SEC 4.5
Name of the Course: INTRODUCTION TO R

COURSE CREDITS	NO. OF HOURSPER WEEK	TOTAL NO. OF TEACHING HOURS
2 CREDITS	3 HOURS	30 HOURS

Pedagogy: Classroom Lecture, Tutorials, Group discussion, Seminar, Case Studies, Review of Journals and Books etc.

Course Outcomes: On successful completion of the course, the Students will be able to:

a. Understand the evolution and importance of R programming in Data Analytics.
b. Differentiate between various data types and structures in R.
c. Conduct basic Exploratory Data Analysis (EDA) with 'ggplot2'.
d. Apply basic statistical techniques using R.
e. Grasp fundamental machine learning concepts and algorithms.

Syllabus:	**Hours**
Unit 1: Introduction to R and Data Handling	**10**

Importance of Data Analytics in Business, Role and Capabilities of R Programming, RStudio Interface and Basic Commands, Data Types in R: Vectors, Lists, and Data Frames, Basic Operations: Arithmetic, Logical, Relational, Overview of Control Structures (if, for loops).

(Lab Sessions)

Unit 2: Data Manipulation and Exploratory Data Analysis	**10**

Basics of Data Importing (CSV, Excel), Data Cleaning Techniques (Handling Missing Values), Data Transformation Using dplyr, Exploratory Data Analysis (EDA) with ggplot2, Descriptive Statistics and Key Visualizations.

(Lab Sessions)

Unit 3: Statistical Analysis and Business Applications	**10**

Introduction to Hypothesis Testing and Confidence Intervals, Simple Linear Regression, Introduction to ANOVA and Non-Parametric Tests, Introduction to Machine Learning in Business, Overview of Simple Algorithms (K-Means Clustering, Decision Trees).

(Lab Sessions)

Skill Developments Activities:

1. Write the steps for RStudio installation (brief).
2. Write basic R codes for data frames and logical operations.
3. Write the steps in performing basic data cleaning using dplyr.
4. Explain simple linear regression and its steps in executing in R