Bharatiya Vidya Bhavan

BHAVAN'S VIVEKANANDA COLLEGE

Of Science, Humanities &Commerce,
Sainikpuri, Secunderabad

Autonomous College-Affiliated to Osmania University
Reaccredited with 'A' Grade by NAAC

Department of Commerce
B.Com (Honours Business Analytics)
Syllabus w.e.f academic year:2026-27(Batch-24-27)

SEMESTER V
INCOME TAX

COURSE CODE: HBA 551 | **HOURS PER WEEK: 5**
YEAR/SEMESTER: III /V | **NO. OF CREDITS: 5**
EXAM HRS: 3 HRS | **MARKS: 70T + 30I**

COURSE OBJECTIVE

COb1: To understand the basic concepts, principles, terminology, and framework of Income Tax, including assessee, assessment year, previous year, agricultural income, and residential status.
COb2: To examine the provisions relating to determination of residential status and scope of total income of an individual assessee.
COb3: To apply the provisions of the Income Tax Act for computation of income under the head "Salaries" including allowances, perquisites, and deductions.
COb4: To apply the provisions relating to computation of income from House Property and determine taxable income after admissible deductions.
COb5: To analyze the provisions governing computation of income from Business or Profession, including depreciation, allowable expenses, disallowances, and professional income.
COb6: To analyze the provisions relating to capital gains, including determination of cost of acquisition, transfer, and computation of short-term and long-term capital gains, also to analyze income from other sources and apply relevant exemptions
COb7: To evaluate exemptions and reliefs available under the Income Tax Act and their impact on taxable income.
COb8: To develop problem-solving skills in computing taxable income under various heads and determining the total income of an individual assessee

UNIT-I: INTRODUCTION

Direct and Indirect Taxes - Canons of Taxation - Origin of Indian Tax System- Manusmriti Features and History of Income Tax in India - Definitions and Basic Concepts of Income Tax: Assessee - Deemed Assessee - Assessee-in-default - Assessment Year - Previous Year - Person - Agricultural Income - Heads of Income - Gross Total Income - Total Income - Incomes' Exempt from Tax. Residential Status and Scope of Total Income: Meaning of Residential Status - Conditions applicable to an Individual Assessee - Incidence of Tax - Types of Incomes.(Theory Only)

UNIT-II: INCOME FROM SALARIES

Definition of Salary – Characteristics of Salary – Computation of Salary Income: Salary u/s 17(1) – Allowances – Perquisites –Deductions u/s. 16 – Problems on computation of Income from Salary

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UNIT-III: INCOME FROM HOUSE PROPERTY

Definition of House Property' - Exempted House Property incomes- Annual Value -Determination of Annual Value for Let-out House and Self-occupied House - Deductions u/s.24 - Problems on computation of Income from House Property.

UNIT-IV: PROFITS AND GAINS OF BUSINESS OR PROFESSION

Definition of _Business and Profession' - Procedure for computation of Income from Business - Revenue and Capital nature of Incomes and Expenses - Allowable Expenses u/s. 30 to 37 - Expenses expressly disallowed - Deemed Profits - Miscellaneous provisions u/s 44.

Depreciation: Meaning - Conditions for charge of depreciation - Problems on computation of Income from Business. Income from Profession: Rules- procedure - problems on computation of Income from Profession.

UNIT-V: CAPITAL GAINS:

Introduction - Meaning - Scope of charge - Basis of charge - Short term and Long term Capital Assets - Transfer of Capital Asset - Deemed Transfer -Determination of Cost of Acquisition - Procedure for computation of Long-term and Short-term Capital Gains/Losses - Exemptions in respect of certain capital gains u/s 54. Problems on computation of capital gains.

Income from Other Sources: General Incomes u/s. 56(1) – Specific Incomes u/s. 56(2) – Dividends u/s. 2(22) – Winnings from lotteries Puzzles, crown world puzzles, Races – Interest on Securities – Gifts received by an Individual – Casual Income – Family Pension – Rent received on let out of Furniture- Plant and Machinery with/without Building – Deductions u/s. 57. (Theory only)

SUGGESTED READING:

1. Income Tax Law and Practice: V.P. Gaur & D.B Narang, Kalyani Publishers.
2. Direct Taxes Law & Practice: Dr. Vinod K. Singhania &Dr. Kapil Singhania, Taxmann
3. Income Tax: B.B. Lal, Pearson Education.
4. Taxation: R.G. Saha, Himalaya Publishing House Pvt. Ltd.
5. Income Tax: Johar, McGrawHill Education.
6. Taxation Law and Practice: Balachandran &Thothadri, PHI Learning

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COURSE OUTCOMES:

At the end of the course, the students will be able to:

HBA551 CO1: Explain the basic concepts, terminology, and principles of Income Tax, including agricultural income, residential status, and heads of income.
HBA551 CO2: Determine the residential status of an individual assessee and assess the scope of total income chargeable to tax.
HBA551 CO3: Compute taxable income under the head "Salaries" after considering allowances, perquisites, and deductions as per the Income Tax Act.
HBA551 CO4: Calculate income from House Property by determining annual value and applying relevant deductions.
HBA551 CO5: Analyze and compute income from Business or Profession by applying provisions relating to allowable expenses, disallowances, and depreciation.
HBA551 CO6: Compute short-term and long-term capital gains by applying relevant provisions relating to transfer, cost of acquisition, and cost of improvement also to apply the various other sources and deductions applicable to it.
HBA551 CO7: Evaluate the applicability of exemptions and deductions relating to capital gains and other income-tax provisions.
HBA551 CO8: Prepare comprehensive computations of total taxable income of an individual assessee by integrating income from various heads.

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SEMESTER V
COST ACCOUNTING

COURSE CODE: HBA552A
YEAR/SEMESTER: III/V
EXAM HRS: 3 HRS

HOURS PER WEEK: 5
NO. OF CREDITS: 5
MARKS: 70T+30I

COURSE OBJECTIVES

COb1: To familiarize students with the concepts, principles, objectives, functions, and scope of Cost Accounting.
COb2: To understand material cost control techniques, inventory management, and methods of pricing material issues.
COb3: To familiarize students with labour cost accounting, wage payment methods, and incentive schemes.
COb4: To enable students to prepare the overhead allocation & apportionment summary through primary & secondary distribution of overheads.
COb5: To familiarise students in Computation of Machine Hour Rate.
COb6: To enable students to prepare cost sheets, tender statements, estimated cost sheets, and job cost sheets.
Cob7: To develop an understanding of contract costing and its application in construction-related industries.
Cob8: To familiarize students with process costing procedures and the treatment of normal and abnormal losses in production industries

UNIT-I: INTRODUCTION
Cost Accounting: Definition – Evolution of Cost Accounting in India- Features – Objectives – Functions – Scope – Advantages and Limitations - Essentials of a good cost accounting system- Difference between Cost Accounting and Financial Accounting – Cost concepts – Cost Classification.

UNIT-II: MATERIAL
Direct and Indirect Material cost – Inventory Control Techniques – Stock Levels – EOQ – ABC Analysis – JIT - VED - FSND - Issue of Materials to Production – Pricing methods: FIFO - LIFO with Base Stock and Simple and Weighted Average methods

UNIT-III: LABOUR AND OVERHEADS
Labour: Direct and Indirect Labour Cost – Methods of Payment of Wages (only Incentive Plans): Halsey, Rowan, Taylor Piece Rate and Merrick Multiple Piece Rate Methods.
Overheads: Classification - Methods of Allocation - Apportionment and Absorption of overheads.

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UNIT-IV: UNIT AND JOB COSTING

Unit Costing: Features - Cost Sheet – Tender and Estimated Cost Sheet.
Job Costing: Features - Objectives – Procedure - Preparation of Job Cost Sheet.

UNIT-V: CONTRACT AND PROCESS COSTING

Contract Costing: Features – Advantages - Procedure of Contract Costing-Problems excluding multiple contracts, continuous contracts and trial balance problems
Process Costing: Meaning – Features – Preparation of Process Account – Normal and Abnormal Losses (Problems excluding stock)

SUGGESTED READINGS:

1. Cost Accounting: Jain and Narang, Kalyani
2. Cost Accounting: M.N. Arora, Himalaya
3. Cost and Management Accounting: PrashantaAthma, Himalaya
4. Cost Accounting: Jawaharlal, Tata Mcgraw Hill
5. Cost Accounting: Theory and Practice: Banerjee, PHI
6. Introduction to Cost Accounting: Tulsian, S.Chand
7. Cost Accounting: Horngren, Pearson
8. Cost Accounting: Ravi M. Kishore, Tax Mann Pulications.

COURSE OUTCOMES:

At the end of the course, the students will be able to
HBA552A CO1: Explain the basic concepts, principles, objectives, and procedures involved in Cost Accounting.
HBA552A CO2: Apply inventory control techniques and material pricing methods for effective material cost management
HBA552A CO3: Compute labour costs using different wage payment and incentive schemes and evaluate their effectiveness
HBA552A CO4: Prepare Primary & Secondary Overhead distribution summaries.
HBA552A CO5: Compute Machine Hour Rate.
HBA552A CO6: Prepare cost sheet, estimated cost sheet, Tender and job cost sheets using methods of costing.
HBA552A CO7: Apply contract costing procedures for cost determination in construction and contract-based industries.
HBA552A CO8: Prepare process accounts and account for normal and abnormal losses in process costing industries.

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SEMESTER V
FINANCIAL MANAGEMENT

COURSE CODE: HBA553A
YEAR/SEMESTER: III/V
EXAM HRS: 3 HRS

HOURS PER WEEK: 5
NO. OF CREDITS: 5
MARKS: 70T+30I

COURSE OBJECTIVES:

COb1: To understand the nature, scope, objectives, and significance of financial management and its relationship with other functional areas of management.
COb2: To apply the concepts of Time Value of Money in evaluating present and future cash flows for financial decision-making.
COb3: To apply traditional and modern capital budgeting techniques for evaluating long-term investment proposals.
COb4: To examine the concept and computation of cost of capital and its role in financing decisions.
COb5: To analyze capital structure theories and evaluate the impact of different financing alternatives on firm value.
COb6: To analyze the effect of operating, financial, and combined leverage and their implications for risk and return.
COb7: To evaluate dividend policies and dividend theories in the context of shareholder wealth maximization.
COb8: To develop decision-making skills relating to working capital estimation and management for ensuring liquidity and profitability.

UNIT–I: INTRODUCTION

Part A: Financial Management: Meaning - Nature & Scope – Importance - Objectives - Profit Maximization - Wealth Maximization – Changing Role of Finance Manager – Relationship with Other Management Areas – Agency Problem – Organization of Finance Function (Theory).
Part B: Time Value of Money: Concept - Techniques - Compounding Techniques - Doubling Period - Multiple Compounding Period - Present Value Techniques (Simple Problems).
Rationale – Future Value of Present Cash Flows: Simple Interest -Compound Interest - Present Value of Future Cash Flows: Single Amount – Series of Cash Flows (Simple Problems).

UNIT-II: LONG-TERM INVESTMENT DECISIONS

Part A: Capital Budgeting: Meaning – Importance – Classification of Projects – Factors - Process –
Part B: Techniques Capital Budgeting: Traditional (Payback and ARR) – Modern (NPV, IRR, PI) (Simple Problems).

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UNIT-III: FINANCING DECISIONS

Part A: Cost of Capital: Concept – Basic Aspects – Importance – Classification – Computation: Specific Cost of Capital (Debt, Preference, Equity and Retained Earnings) – Weighted Average Cost of Capital (Weights-Book Value, Market Value and Marginal) (Simple Problems).
Part B: Capital Structure: Meaning – Importance – Factors – Types – Optimal Capital Structure – Theories of Capital Structure: Net Income Approach - Net Operating Income Approach - Traditional Approach - Modigliani and Miller Approach (Simple Problems).

UNIT-IV: DIVIDEND DECISIONS

Part A: Leverages: Meaning – Types – Operating – Financial – Combined – EBIT-EPS Analysis (Simple Problems).
Part B: Dividend Policy: Meaning – Types – Factors – Forms of Dividends – (Theory only) Dividend Theories: Relevance Theories – Walter's Model – Gordon's Model – Irrelevance Theory – Miller and Modigliani Theory (Simple Problems).

UNIT-V: SHORT-TERM INVESTMENT DECISIONS

Part A: Working Capital Management: Concept – Kinds – Components – Objectives – Need – Operating Cycle - Factors
Part B: Methods of Estimating Working Capital: Percentage of Sales Method – Regression Analysis Method – Cash Forecasting Method – Operating Cycle Method

SUGGESTED READINGS:

1. Financial Management: I M Pandey, Vikas Publishing House Pvt Ltd.
2. Financial Management: M.Y. Khan & P.K. Jain, Tata McGraw-Hill
3. Financial Management: Shashi K. Gupta & R.K. Sharma, Kalyani Publishers,
4. Financial Management: R.M. Srivastava, Himalaya Publishing House, Hyderabad.
5. Financial Management: Prasanna Chandra , McGraw Hill
6. Financial Management: Rustagi, Taxman Publications.
7. Fundamentals of Financial Management: Sharan, Pearson.
8. Financial Management: Tulsian, S. Chand.
9. Financial Management: Satish B Mathur, Trinity Press.
10. Fundamentals of Financial Management: D. Chandra Bose, PH

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COURSE OUTCOMES

At the end of the course, the students will be able to:

HBA553A CO1: Explain the meaning, scope, objectives, and importance of financial management, including the role of the finance manager and agency relationship.
HBA553A CO2: Apply Time Value of Money techniques to compute present values, future values, compounding, discounting, and cash flow valuations.
HBA553A CO3: Evaluate investment proposals using capital budgeting techniques such as Payback Period, ARR, NPV, IRR, PI, and Capital Rationing.
HBA553A CO4: Compute the specific and weighted average cost of capital and assess their significance in financial decision-making.
HBA553A CO5: Analyze capital structure alternatives using various capital structure theories and determine the optimal capital structure of a firm.
HBA553A CO6: Analyze the impact of operating, financial, and combined leverage and perform EBIT–EPS analysis for financing decisions.
HBA553A CO7: Evaluate dividend policies and theories and assess their influence on shareholder wealth and firm value.
HBA553A CO8: Prepare estimates of working capital requirements using different methods and recommend suitable working capital management strategies.

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SEMESTER V
BUSINESS FORECASTING

COURSE CODE: HBA554A | **HOURS PER WEEK: 3T+4P**
YEAR/SEMESTER: III/V | **NO. OF CREDITS: 5**
EXAM DURATION: 2 HRS | **MARKS: 50T + 15I + 35P**

COURSE OBJECTIVES

COb1: To develop an understanding of the role of business forecasting in planning and decision-making.
COb2: To build the ability to assess forecasting accuracy using appropriate error measures.
COb3: To enable students to identify trends, patterns, and variations in time series data.
COb4: To develop skills in applying time series techniques for forecasting business data.
COb5: To help students understand stationarity, autocorrelation, and decomposition methods used in forecasting.
COb6: To develop competency in building regression models for analysing and forecasting business outcomes.
COb7: To strengthen analytical skills by evaluating forecasting models using diagnostic tests and performance measures.
COb8: To provide an understanding of neural network concepts and their applications in business forecasting.

UNIT-I: INTRODUCTION TO BUSINESS FORECASTING:

Business Forecasting, Importance, Business Forecasting Methods, Time Series Analysis, Components of Time Series- Secular Trend, Seasonal Variations, Cyclical Variations, Random Variations, The Additive Model and Multiplicative Model, Measurements of Error in Forecasting (MAD, MAPE, RMSE)
Lab Work: Measurement of Errors using Ms-Excel & Python

UNIT-II: TIME SERIES ANALYSIS:

Smoothing Techniques, Moving Averages Method, Weighted Moving Averages Method, Semi-Averages Method, Exponential Smoothing Method, Double Exponential Smoothing Method (Only Theory), Regression Trend Analysis, Autocorrelation and Auto regression- Numerical Problems
Lab Work: Smoothing Techniques using Ms-Excel & Python

UNIT-III: UNIVARIATE TIME SERIES ANALYSIS:

Univariate Data and Statistics, Stationarity, Augmented Dickey Fuller Test of Stationarity, Time Series Decomposition like Holt Winters Method, ACF & PACF plots, Auto Regressive Integrated Moving Average, Lag Identification, Testing Assumptions of Linear Regression- Fitting Model- Interpretation of Output - Numerical problems on Fitting Simple Linear Regression
Lab Work: Fitting Simple linear Regression using Excel & Python; Testing assumptions using Python

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UNIT-IV: MULTIPLE LINEAR REGRESSION:
Regression model with more than one Independent Variable (Multiple Regression), Determination of Coefficient of Multiple Determination (R^2), Adjusted R^2, Standard Error of Estimate, Testing Assumptions of Multiple Linear Regression- Other Regression Models- Decision Trees
Lab Work: Fitting Multiple Linear Regression using Excel & Python; Testing assumptions using Python

UNIT-V: NEURAL NETWORKS FOR TIME SERIES ANALYSIS: (Theory only)
Neural Networks- Introduction, Need for Neural Networks in Forecasting, Structure of Artificial Neural Networks, Input Layer, Hidden Layer and Output Layer, Activation Functions, Optimization Techniques, Neural Networks for Time Series Forecasting, Applications, Advantages and Limitations of Neural Networks in Business Forecasting.

SUGGESTED READINGS:
1. Basic Econometrics – Damodar N Gujarati
2. Multivariate Data Analysis: Hair, Black, Babin, Anderson, Pearson.
3. Applied Multivariate Statistical Analysis: Richard A. Johnson, Pearson.
4. Statistics for Business and Economics: Anderson, Cengage Learning.
5. Statistics for Management: R. I. Levin, D. S. Rubin, S. Rastogi &M. H. Siddiqui, Pearson.

COURSE OUTCOMES:
At the end of the course, the students will be able to

HBA554A CO1: Explain the concepts and applications of business forecasting in organizational decision-making.
HBA554A CO2: Apply forecasting techniques and error measures to evaluate forecast accuracy.
HBA554A CO3: Analyse time series data by identifying trend, seasonal, cyclical, and random variations.
HBA554A CO4: Apply smoothing and time series techniques to forecast business data.
HBA554A CO5: Examine stationarity, autocorrelation, and decomposition methods in time series analysis.
HBA554A CO6: Develop regression models for analysing relationships and forecasting outcomes.
HBA554A CO7: Evaluate forecasting models using diagnostic tests and performance indicators.
HBA554A CO8: Explain the concepts, components, applications, advantages, and limitations of neural networks in business forecasting.

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SEMESTER V
RESEARCH METHODOLOGY

COURSE CODE: HBA 555A
YEAR/SEMESTER: III/V
EXAM HRS: 3 HRS

HOURS PER WEEK: 4T+2P
NO. OF CREDITS: 5
MARKS: 70T+10I+20P

COURSE OBJECTIVES:

COb1: To introduce the fundamental concepts, objectives, types, and processes of research and enable students to identify research problems.
COb2: To develop an understanding of research design, its components, classifications, and criteria for effective research planning.
COb3: To familiarize students with measurement levels, scaling techniques, and sampling methods used in research studies.
COb4: To develop the ability to formulate research hypotheses and apply appropriate statistical techniques for hypothesis testing.
COb5: To enable students to apply t-test and F-test for analysing sample data and drawing valid inferences.
COb6: To provide knowledge of Chi-Square Test and Analysis of Variance (ANOVA) for testing research hypotheses.
COb7: To develop skills in interpreting research findings and drawing meaningful conclusions from data analysis.
COb8: To equip students with the knowledge and skills required for effective research report writing and presentation.

UNIT-I: INTRODUCTION
Research: Objectives - Relevance - Classification - Process and Steps involved.
Formulation of the Research Problem - Steps involved in the selection.

UNIT-II: RESEARCH DESIGN
Introduction –Contents of Research design - Concepts relating to RD- Classification - Criteria of a Good Research Design.

UNIT-III: LEVELS OF MEASUREMENT & SCALING
Introduction - Measurement Levels/Scales - Scaling Techniques.
Sampling Considerations – Concepts, uses of sampling in real life, Sampling Vs Non sampling errors – Sampling Design (Probability and Non-Probability Sampling Design)

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UNIT-IV: TESTING OF HYPOTHESIS -I
Hypothesis: Meaning - Types – Characteristics.
Hypothesis Testing: Procedure – Steps-T- Test - F- Test.

UNIT-V: TESTING OF HYPOTHESIS –II AND RESEARCH REPORT WRITING
Testing of hypothesis: Chi-Square Test, ANOVA (One Way ANOVA, Two Way ANOVA)
Report Writing: Types of Reports - Methods of Research Report Writing - Tables and Charts - Bibliography and Index - Diagrammatic Presentation

SUGGESTED READINGS:

1. Research Methodology: Deepak Chawla &Neena Sondhi: Vikas Publications
2. Research Methodology: Himalaya Publications.
3. Methodology of Research in Social Sciences: Krishna Swamy,
4. Research Methodology: Kothari & Garg, New Age Publication
5. Research Methodology: Paneer Selvam R, PHI
6. Research Methodology: Dr Vijay Upagade & Dr Arvind Shende, S. Chand Publications
7. Research Methodology: Ranjit Kumar, Pearson Publication
8. Reading in Research Methodology in Commerce & Business Management: Achalapathi KV
9. Research Methodology: Sashi. K Gupta, Praneeth Rangi, Kalyani Publishers.

COURSE OUTCOMES:
At the end of the course, the students will be able to

HBA555A CO1: Explain the fundamental concepts, terminology, types, and processes of research and identify suitable research problems.
HBA555A CO2: Design and develop appropriate research plans by applying suitable research designs and sampling techniques.
HBA555A CO3: Construct research instruments, apply measurement and scaling techniques, and formulate research hypotheses.
HBA555A CO4: Apply statistical techniques such as t-test and F-test to analyse data and test research hypotheses.
HBA555A CO5: Use Chi-Square Test and ANOVA to draw valid inferences from research data.
HBA555A CO6: Interpret statistical results and make evidence-based conclusions from research findings.
HBA555A CO7: Utilize appropriate technological and analytical tools in conducting and managing research studies.
HBA555A CO8: Prepare and present professional research reports with proper documentation, tables, charts, bibliography, and references (Project Work).

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SEMESTER VI

PROJECT REPORT

COURSE CODE: HBA 651 **HOURS PER WEEK: 8**
YEAR/SEMESTER: III/VI **NO. OF CREDITS: 4**

COURSE OBJCTIVES:

COb1: To enable students to identify practical business problems and study them systematically through project work.
COb2: To provide students with an opportunity to apply research methods, analytical tools, and subject knowledge in real-life business situations.
COb3: To develop students' ability to collect, organise, analyse, and interpret data for meaningful decision-making.
COb4: To help students integrate theoretical concepts with practical observations while developing suitable solutions and recommendations.
COb5: To develop report writing and documentation skills by following appropriate project structure and academic standards.
COb6: To strengthen critical thinking, problem-solving, and decision-making skills through project execution.
COb7: To encourage collaboration, communication, and effective project execution in individual or group-based work.
COb8: To familiarise students with ethical research practices including proper citation, referencing, and avoidance of plagiarism.

ORGANISATION OF PROJECT REPORT

1) Project report should be presented in the following sequence:
i) Title page; ii) Student's declaration; iii) Supervisor's certificate; iv) Internship certificate; v) Abstract; vi) Acknowledgements; vii) Table of contents; viii) List of tables; ix) List of figures; x) List of appendices.

2) Chapter Design should be as follows:
Chapter-I: Introduction: this chapter includes the research problem, need for study/significance of the project, objectives, methodology (hypotheses, statistical tools, data source, scope, sample, chapter design).
Chapter-II: Company Profile: this chapter should contain a brief historical retrospect about the entity of your study.
Chapter-III: Data Analysis and interpretation: this chapter should present the data analysis and inferences.
Chapter-IV: Summary and Conclusions: This Chapter should give an overview of the project, conclusions, implications, recommendations and scope for further research.

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Bibliography: lists the books, articles, and websites that are referred and used for research on the topic of the specific project. Follow Harvard style of referencing.
Appendices: the data, used to prepare the tables for analysis, may not be feasible to incorporate as part of chapters, may given as appendices.

TECHNICAL SPECIFICATIONS OF THE PROJECT

1) Project should be typed on A4 white COURSE and be 1.5 spaced.
2) All pages should be numbered, and numbers should be placed at the centre of the bottom of the page.
3) All tables, figures and appendices should be consecutively numbered or lettered and suitably labelled.
4) 3 bound copies & a soft copy should be handed in to the principal/director of your college/institute at the time of submission.

5) /Bibliography and referencing: Referencing is necessary to avoid plagiarism, to verify quotations and to enable readers to follow-up and read more fully the cited author's arguments. Reference is given within the text of the project as well as at the end of the project. The basic difference between citation and a reference list (bibliography) is that the latter contains full details of all the in-text citations.
   - Citation provides brief details of the author and date of publication for referencing the work in the body of the text.
   - Reference list is given at the end of the text and is a list of all references used with additional details provided to help identify each source.

Proper referencing is as crucial aspect of your project. You are therefore strongly advised to talk to your supervisor about this, in order to make sure that your project report follows the appropriate referencing system.

SUGGESTED READINGS:

Organizations Websites, Research Reports, Journals, Official Websites of RBI, SEBI, BSE, NSE, All published sources and unpublished sources.

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B.Com (Honours Business Analytics)
Syllabus w.e.f academic year:2026-27(Batch-24-27)

COURSE OUTCOMES:

At the end of the course, the students will be able to

HBA651 CO1: Identify practical business problems and formulate objectives for conducting project work.
HBA651 CO2: Apply appropriate research methods and analytical techniques to investigate business situations.
HBA651 CO3: Collect, organise, analyse, and interpret data to derive meaningful findings.
HBA651 CO4: Integrate theoretical knowledge with practical observations and provide suitable conclusions and recommendations.
HBA651 CO5: Prepare and present a well-structured project report by following academic and professional standards.
HBA651 CO6: Demonstrate critical thinking and problem-solving skills while addressing real-world business issues.
HBA651 CO7: Demonstrate effective planning, collaboration (where applicable), and communication during project execution and presentation.
HBA651 CO8: Follow ethical research practices through proper documentation, citation, referencing, and responsible use of information

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SEMESTER VI

PROJECT WORK AND VIVA VOCE

COURSE CODE: HBA 651 | **HOURS PER WEEK: 8**
YEAR/SEMESTER: III/VI | **NO. OF CREDITS: 4**

COURSE OBJCTIVES:

COb1: To enable students to identify practical business problems and study them systematically through project work.
COb2: To provide students with an opportunity to apply research methods, analytical tools, and subject knowledge in real-life business situations.
COb3: To develop students' ability to collect, organise, analyse, and interpret data for meaningful decision-making.
COb4: To help students integrate theoretical concepts with practical observations while developing suitable solutions and recommendations.
COb5: To develop report writing and documentation skills by following appropriate project structure and academic standards.
COb6: To strengthen critical thinking, problem-solving, and decision-making skills through project execution.
COb7: To encourage collaboration, communication, and effective project execution in individual or group-based work.
COb8: To familiarise students with ethical research practices including proper citation, referencing, and avoidance of plagiarism.

ORGANISATION OF PROJECT REPORT

1) Project report should be presented in the following sequence:
i) Title page; ii) Student's declaration; iii) Supervisor's certificate; iv) Internship certificate; v) Abstract; vi) Acknowledgements; vii) Table of contents; viii) List of tables; ix) List of figures; x) List of appendices.

2) Chapter Design should be as follows:
Chapter-I: Introduction: this chapter includes the research problem, need for study/significance of the project, objectives, methodology (hypotheses, statistical tools, data source, scope, sample, chapter design).
Chapter-II: Company Profile: this chapter should contain a brief historical retrospect about the entity of your study.
*Chapter-III: D*ata Analysis and interpretation: this chapter should present the data analysis and inferences.
Chapter-IV: Summary and Conclusions: This Chapter should give an overview of the project, conclusions, implications, recommendations and scope for further research.

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UNIT-IV: BUDGETARY CONTROL AND STANDARD COSTING

Budget: Meaning – Objectives – Advantages and Limitations – Essentials of Budgets - Budgetary Control - Classification of Budgets - Preparation of Fixed, Flexible and Cash Budgets.(Problems on Cash Budget and Flexible Budget Only)

Standard Costing: Meaning – Importance – Standard Costing and Historical Costing - Steps involved in Standard Costing. Variance Analysis: Material variance - Labour variance

UNIT-V: CASH FLOW ANALYSIS AND FUNDS FLOW STATEMENTS

Meaning – Importance – Differences between Funds Flow and Cash Flow Statements – Procedure for preparation of Cash Flow Statement. Simple Problems.

Concept of Funds - Meaning and Importance - Limitations - Statement of Changes in Working Capital - Statement of Sources and Application of Funds- Simple Problems only on Statement of changes in working capital

SUGGESTED READINGS:

1. Management Accounting- Principles & Practice: Sharma RK &Shashi K. Gupta, Kalyani
2. Advanced Managerial Accounting: Srihari Krishna Rao, Himalaya
3. Advanced Managerial Accounting: Dr. Sundaram, PBP
3. Advanced Management Accounting: Robert S. Kaplan & Anthony A. Atkinson, Prentice-Hall
4. Management Accounting: Rustagi R.P, Galgotia
5. Managerial Accounting: Ronald W. Hilton, TMH

COURSE OUTCOMES:

At the end of the course, the students will be able to

HBA652A CO1: Explain the concepts, scope, importance, and evolution of Management Accounting and Financial Statement Analysis.

HBA652A CO2: Analyse financial statements using comparative statements, common size statements, and trend analysis techniques.

HBA652A CO3: Compute and interpret activity, liquidity, solvency, and profitability ratios for evaluating business performance.

HBA652A CO4: Differentiate between Marginal Costing and Absorption Costing and apply marginal costing techniques in managerial decision-making.

HBA652A CO5: Apply CVP Analysis and Break-even Analysis to determine cost, volume, and profit relationships in business decisions.

HBA652A CO6: Prepare cash budgets and flexible budgets under Budgetary Control techniques for planning and control purposes.

HBA652A CO7: Analyse material and labour variances using Standard Costing techniques for effective cost control.

HBA652A CO8: Prepare Cash Flow Statements and Statements of Changes in Working Capital to assess financial position and fund movements.

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SEMESTER VI
BUSINESS LAW

COURSE CODE: HBA 653A | **HOURS PER WEEK: 5**
YEAR/SEMESTER: III/VI | **NO. OF CREDITS: 5**
EXAM DURATION :3HRS | **MAX MARKS:70T+30I**

COURSE OBJECTIVES

COb1: To understand the fundamental concepts of contracts, including offer, acceptance, consideration, and contractual capacity under the Indian Contract Act.
COb2: To analyse the legality of object and consideration and understand the discharge of contracts and remedies for breach.
COb3: To understand the provisions relating to the sale of goods, including conditions, warranties, and rights of unpaid sellers.
COb4: To familiarize students with consumer rights, consumer protection councils, and redressal mechanisms.
COb5: To examine the legal provisions governing directors, their duties, liabilities, and remuneration.
COb6: To understand the conduct and management of company meetings and corporate governance practices.
COb7: To understand the concept, modes, procedures, and consequences of winding up of companies.
COb8: To acquire knowledge of the objectives, provisions, digital signatures, e-governance, offences, and penalties under the Information Technology Act.

UNIT–I: INDIAN CONTRACT ACT-I

Agreement and contract -Essentials of a valid contract-Types of contracts- Offer and Acceptance - Essentials of valid offer and acceptance - Communication and revocation of offer and acceptance– Consideration definition-Essentials of valid consideration– Doctrine of Stranger to Contract ", "No Consideration No Contract" – Capacity to a Contract – Minor agreements.

UNIT–II: INDIAN CONTRACT ACT-II

Legality of Object and Consideration – agreement opposed to public policy- – Discharge of Contract: Modes of Discharge of a contract - Breach of Contract - Remedies for Breach.

UNIT III: SALE OF GOODS ACT AND CONSUMER PROTECTION ACT:

Contract of Sale: Essentials of Valid Sale - Sale and Agreement to Sell – Definition and Types of Goods - Conditions and Warranties - Caveat Emptor - Exceptions - - Unpaid Seller - Rights of Unpaid Seller. Consumer Protection Act 2019 Definitions of Consumer – Person – Goods -Service -Consumer Dispute- Consumer Protection Councils-Consumer Dispute Redressal Agencies -Appeals.

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UNIT–IV: MANAGEMENT OF COMPANIES AND MEETINGS:

Director: Qualification - Disqualification - Position - Appointment- Removal – Duties and Liabilities – Remuneration – Meeting: Meaning – Requisites - Notice – Proxy - Agenda – Quorum –Resolutions – Minutes – Kinds – Shareholder Meetings - Annual General Body Meeting –Extraordinary General Body Meeting–Board Meetings.

UNIT–V: WINDING UP and Information technology act 2005

Meaning–Modes of Winding Up–Winding Up by tribunal–Voluntary Winding Up–Compulsory Winding Up – Consequences of Winding Up

Information Technology Act 2005

Objectives of Information Technology Act 2005 - Definitions -Digital signatures -E-governance - Offences & Penalties

SUGGESTEDREADINGS:

1. Business Law: ND Kapoor, Sultan Chand and Co.
2. Company Law: Rajashree. –HPH to -Kavitha Krishna, Himalaya Publishing House
3. Business Laws –Dr. B. K. Hussain, Nagalakshmi -PBP
4. Company Law: Prof. G. Krishna Murthy, G. Kavitha, PBP
5. Company Law and Practice: GK Kapoor& Sanjay Dhamija, Taxmann Publication.
6. Company Law: Revised as per Companies Act-2013: KC Garg et al, Kalyani Publication.
7. Corporate Law: PPS Gogna, S Chand.
8. Business Law: D.S. Vital, S Chand
9. Company Law: BagrialAK,Vikas Publishing House.

COURSE OUTCOMES:

At the end of the course, the students will be able to

HBA653A CO1: Explain the principles of contract formation, including offer, acceptance, consideration, and contractual capacity.

HBA653A CO2: Analyse the legality of agreements, discharge of contracts, and remedies available for breach.

HBA653A CO3: Demonstrate understanding of contracts of sale, conditions, warranties, and rights of unpaid sellers.

HBA653A CO4: Evaluate consumer rights and utilize consumer dispute redressal mechanisms effectively.

HBA653A CO5: Assess the legal responsibilities, duties, and liabilities of company directors.

HBA653A CO6: Explain the procedures and requirements of company meetings and corporate decision-making.

HBA653A CO7: Explain the various modes of winding up of companies and evaluate the legal procedures and consequences associated with the winding-up process.

HBA653A CO8: Interpret the provisions of the Information Technology Act and its application to e-governance, digital signatures, and cyber offences.

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SEMESTER VI
OPTIMISATION TECHNIQUES FOR BUSINESS ANALYTICS

COURSE CODE: HBA654A | **HOURS PER WEEK: 4T+2P**
YEAR/SEMESTER: III / VI | **NO. OF CREDITS: 5**
EXAM DURATION: 3 HRS | **MARKS: 70T + 10I + 20P**

COURSE OBJECTIVES

COb1: To provide an understanding of Operations Research concepts, tools, and applications in managerial decision-making and business optimization.
COb2: To develop the ability to formulate Linear Programming Problems (LPPs) and obtain graphical solutions for optimization problems.
COb3: To enable students to solve Linear Programming Problems using Simplex, Big M, and Two-Phase methods and analyse special cases.
COb4: To familiarize students with transportation models and techniques for obtaining optimal transportation solutions.
COb5: To develop the skills required to formulate and solve assignment problems using appropriate optimization methods.
COb6: To introduce the concepts and applications of Travelling Salesman Problems in business decision-making.
COb7: To understand the principles of Game Theory and apply them to strategic business situations.
COb8: To enhance analytical and quantitative decision-making skills through optimization techniques and business analytics applications.

UNIT-I: INTRODUCTION TO OPERATIONS RESEARCH AND LINEAR PROGRAMMING PROBLEM

Introduction: History of Operations Research, Scope of OR, Managerial applications of Operations Research, Linear Programming Problem: Meaning, Mathematical formulation of LPP, Graphical Solution of LPP

UNIT-II: SOLVING LPP USING SIMPLEX METHOD

Canonical and Standard Forms of LPP, solving LPP by Simplex Method. Degeneracy in LPP, Big M Method- Two Phase Method

UNIT-III: TRANSPORTATION PROBLEM

Transportation Problem- Introduction, procedures of finding basic feasible and optimal solution – NW corner rule, minimum cost method, Vogel"s Approximation, Optimum Solution using MODI method and stepping Stone Method, Concept of Transshipment Problem (Theory Only)

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UNIT IV: ASSIGNMENT PROBLEM

Assignment Problem - Introduction, Balanced and unbalanced Assignment Problem, solving of Assignment problem by Hungarian/ Floods Algorithm, Maximisation of Assignment Problem, Travelling Salesman Problem

UNIT-V: GAME THEORY

Game theory: Introduction, Two Person Zero Sum Games, Pure Strategies, Dominance Principle, Graphical; Solving Game by using LPP

SUGGESTED READINGS:

1. Sharma, J.K. (2010), *Operations Research Theory and Applications*, New Delhi: Macmillan India limited.
2. Operations Research: J K Sharma, Macmillan.
3. Operations Research: Hamdy A. Taha, Pearson.
4. Operations Research: Mote and Madhaan, Wiley
5. Quantitative Techniques in Management : N. D. Vohra, Tata McGraw Hill.
6. Quantitative Techniques for Managerial Decisions: U. K. Srivastava, G. V. Shenoy and S. C. Sharma. New Age International Ltd.
7. Sharma, S.D. (2012), Operations Research, Meerut: Kedar Nath Ram Nath & Co.
8. Hillier. F.S., & Lieberman, G.L. (2014), Introduction to Operations Research - Concepts and Cases, New Delhi: Tata McGraw Hill.

COURSE OUTCOMES:

At the end of the course students will be able to

HBA654A CO1: Apply Operations Research concepts and formulate Linear Programming Problems for business decision-making and optimization.

HBA654A CO2: Solve Linear Programming Problems using graphical methods and interpret optimal solutions.

HBA654A CO3: Apply Simplex, Big M, and Two-Phase methods to obtain optimal solutions for Linear Programming Problems.

HBA654A CO4: Formulate transportation problems and determine optimal solutions using appropriate transportation algorithms.

HBA654A CO5: Solve balanced and unbalanced assignment problems and analyse Travelling Salesman Problems using optimization techniques.

HBA654A CO6: Apply optimization models to improve resource allocation and operational efficiency in business scenarios.

HBA654A CO7: Evaluate competitive business situations using Game Theory concepts and determine optimal strategies.

HBA654A CO8: Develop analytical, quantitative, and problem-solving skills for solving real-world business optimization problems using business analytics tools and techniques.

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SEMESTER VI
APPLICATIONS OF BUSINESS ANALYTICS

COURSE CODE: HBA655A | **HOURS PER WEEK: 3T+4P**
YEAR/SEMESTER: III/VI | **NO. OF CREDITS: 5**
EXAM DURATION: 3 HRS | **MARKS: 50T + 15I + 35P**

COURSE OBJECTIVES

COb1: To develop an understanding of Big Data concepts, technologies, and their applications in modern organizations.
COb2: To provide an overview of Artificial Intelligence techniques and their role in business analytics.
COb3: To examine the use of analytical and AI-driven approaches for solving business problems.
COb4: To develop an understanding of supervised and unsupervised learning techniques used in business decision-making.
COb5: To explore the applications of analytics and AI in the finance function.
COb6: To examine the role of AI in enhancing marketing strategies and customer relationship management.
COb7: To develop an understanding of the use of analytics and AI in human resource management.
COb8: To strengthen analytical thinking by evaluating real-world business applications of Big Data and Artificial Intelligence.

UNIT-I: IMPLEMENTATION OF BIG DATA
Introduction to Big Data, Evolution of Big Data - Big Data Characteristics - V's of Big Data
Big Data Ecosystems - Storage - HDFS and Cluster implementation
Parallel Processing Systems - Map Reduce, Spark; SQL on Big Data - Hive and Spark SQL, Spark Data frames; Big Data Use cases across different domains

UNIT- II: INTRODUCTION TO AI
Unsupervised Learning: Hierarchical and K means Clustering Distance, similarity metrics, hierarchical clustering- dendograms, k means algorithm, goodness of clustering; Association Rules -why association rules, properties of support confidence and lift in association rules, Apriori algorithm
Supervised Learning: Decision Trees- Linear and Non-Linear classifiers, entropy and gini index hand calculations, CART-classification and regression trees, minimizing overfit- cost complexity parameters, pre-prune and post prune methods
Random Forests - Introduction to ensembling methods- concept of bootstrap aggregation and its advantages, random selection of variables
Introduction to Neural Networks-Introduction to perceptron weights, biases, activation functions, back propagation- a high-level overview

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UNIT- III: ANALYTICS IN FINANCE

Types of Analysis- Descriptive, Prescriptive, Predictive
Changing landscape of finance, Role of analytics in Finance; Types of financial data and its source; Analytics in Finance- Bankruptcy Prediction – Credit default (individual) – Stock price Prediction

UNIT- IV: AI IN MARKETING

Explore the impact of AI in marketing, application of AI in customer journey, Application of AI in media optimization - Use cases -Customer Churn Prediction – Marketing Analysis – Marketing Campaign response Analysis

UNIT-V: AI IN HR

Emerging trends in HR, Business case for analytics in HR, Applications of analytics in HR – recruitment, Learning & Development, measuring employee engagement, compensation management.
Employee Attrition Prediction- employee Termination Prediction – Absenteeism Prediction

Suggested Readings:

1. AI and Analytics: Accelerating Business Decisions; Sameer Dhanrajani; ISBN: 9788126573035
2. Big Data MBA: Driving Business Strategies with Data Science; Bill Schmarzo; ISBN: 978-1-119- 18111-8

COURSE OUTCOMES:

At the end of the course, the students will be able to

HBA655A CO1: Explain the concepts, characteristics, and business applications of Big Data.
HBA655A CO2: Describe the fundamentals of Artificial Intelligence and its relevance to business analytics.
HBA655A CO3: Examine supervised and unsupervised learning techniques used in business problem-solving.
HBA655A CO4: Analyse the role of analytics and AI in supporting financial decision-making and forecasting.
HBA655A CO5: Evaluate the applications of AI in marketing, customer behaviour analysis, and campaign management.
HBA655A CO6: Analyse the use of analytics and AI in recruitment, employee engagement, learning, and workforce management.
HBA655A CO7: Assess the impact of Big Data and AI technologies on business processes and organizational performance.
HBA655A CO8: Interpret real-world business scenarios and recommend suitable analytics and AI-based solutions.

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