SEMESTER-IV
Bachelor in Management Studies (BMS)

DISCIPLINE SPECIFIC CORE COURSE – 10: QUANTITATIVE TECHNIQUES FOR

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course title & Code	Credits	Credit distribution of the course			Eligibility criteria	Pre-requisite of the course (if any)
		Lecture	Tutorial	Practical / Practice		
Quantitative Techniques for Management (DSC 10)	4	3	1	0	XII Class	Basic knowledge of Statistics and Mathematics

Learning Objectives

- To apprise learners with the construction of mathematical models for managerial decision situations and to use spreadsheets or computer software packages to obtain a solution of real business problems.
- To acquaint learners with the techniques of Operational Research for understanding, formulating, solving and interpreting the real-world scenarios.

Learning Outcomes

On successful completion of the course the learner will be able to:

- Understand the basic concepts, principles, and terminology of linear programming, optimization, post optimality analysis, Game theory, Transportation problem, Assignment problem and Network analysis.
- Solve and interpret the results of linear programming, Transportation and Assignment problems, Network Analysis and Game Theory.
- Construct optimization models, linear programming problems, and decision-making frameworks based on given problem statements and real-world scenarios.
- Develop critical thinking and use Optimization techniques to improve decision making.

SYLLABUS OF DSC 10

Unit I: Introduction to Linear Programming Problem (12 hours)

Formulation of linear programming problems, graphical solutions (special cases: multiple optimal solution, infeasibility, unbounded solution), applications of linear programming to marketing, finance, operations management, Data Envelopment Analysis etc.,Simplex Method, Special cases, Big-M method and Two-phase method.

Unit II: Post Optimality Analysis and Game Theory (9 hours)

Duality: primal-dual relationship, shadow price, economic interpretation of dual, duality and simplex method, post optimality analysis: consequences of changes in cost coefficients and resource vector on the optimal solution.

Game theory, two-person zero-sum games, maximin & minimax principle, games without saddle point: mixed strategy, dominance rule, solution of 2 x s, and r x 2 games by graphical method, formulate and solve mixed-strategy m x n games using linear programming technique.

Unit III: Transportation and Assignment Problem (12 hours)

Transportation Problem: Formulation, Solution by N.W. Corner Rule, Least Cost method, Vogel's Approximation Method (VAM), Modified Distribution Method; Special cases: Multiple Solutions, Maximization case, Unbalanced case, Prohibited routes.

Assignment Problem: Hungarian Method, Special cases: Multiple Solutions, Maximization case, Unbalanced case, Restrictions on assignment.

Unit IV: Network Analysis (12 hours)

Basic Concept, Construction of AOA Network diagram, Critical Path Analysis, float and slack analysis (Total float, free float, independent float), probability consideration in PERT, Time-Cost optimization in Project.

Essential/recommended Readings (latest edition of readings to be used)

1. Taha, H. A. (2019). *Operations Research: An Introduction*. Pearson Education, India.
2. Taylor, B. W. (2016). *Introduction to management science*. Pearson Education, India.
3. Hillier, F. S. & Lieberman G. J. (2021) *Introduction to Operations Research.* McGraw Hill, India.
4. Render, B., & Stair Jr, R. M. (2016). *Quantitative Analysis for Management*, 12th ed. Pearson Education, India.
5. Vohra, N. D. (2006). Quantitative Techniques in Management, 5th ed. Tata McGraw Hill, India.

Note: Examination scheme and mode shall be as prescribed by the Examination Branch, University of Delhi, from time to time.

DISCIPLINE SPECIFIC CORE COURSE – 11: FINANCIAL MANAGEMENT

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course title & Code	Credits	Credit distribution of the course			Eligibility criteria	Pre-requisite of the course (if any)
		Lecture	Tutorial	Practical / Practice		
Financial Management (DSC 11)	4	3	1	0	Class XII	Basic knowledge of Accounting

Learning Objectives

- To provide an understanding of the essential elements of the financial environment in which the business firm operates.
- To acquaint learners with the techniques of financial management and their applications for business decision making.

Learning Outcomes

On successful completion of the course the learner will be able to:

- Understand the concept of time value of money and its application in investment, financing and dividend decisions.
- Understand the process of making investments, raising finance for investment in fixed and current assets and distribution of surplus from business operations.
- Evaluate the investment opportunities available, the various financing mix that can be used to derive the maximum value from the investment opportunities, the optimal dividend payout and monitor the current asset requirements.
- Analyse the evaluation outcomes to choose the best investment opportunity at the lowest cost of financing and adopt the optimal dividend payout along with the optimal level of liquidity through the working capital route to derive maximum wealth.
- Create a portfolio of investments at the best possible financing and dividend mix with the most appropriate working capital composition that will create maximum wealth under the given constraints.

SYLLABUS OF DSC 11:

Unit 1: Introduction to Financial Management (6 Hours)

Nature of Financial Management: Finance and related disciplines; Scope of Financial Management; Profit Maximization vs Wealth Maximization. Types of financial decisions – Finance, Investment , Dividend; Risk-Return Trade-off in Finance Functions. Organisation of finance function; Concept of Time Value of Money – present value, future value.

Unit 2: Strategic Investment Decisions and Cost of Capital (15 Hours)

Strategic Investment Decisions: Capital Budgeting - Nature and meaning of capital budgeting; Principles and Process; Estimation of relevant cash flows and terminal value; Evaluation techniques – Payback and Discounted Payback Period, Net Present Value (NPV), Profitably Index Method, Internal Rate of Return (IRR) & Modified IRR, NPV vs. IRR, Net Terminal Value. Cost of Capital: Meaning and concept, Measurement of cost of capital – Cost of debt; Cost of Equity Share; Cost of Preference Share; Cost of Retained Earning; Computation of overall cost of capital based on Historical and Market weights (WACC).

Unit 3 Strategic Financing & Dividend Decisions (12 Hours)

Strategic Financing Decisions – Capital Structure, Theories and Value of the firm – Net Income approach, Net Operating Income approach, Traditional approach. Determining the optimal capital structure. Leverage analysis and EBIT-EPS Analysis: Concept of leverage, Types of leverage: Operating leverage, Financial leverage, Combined leverage; EBIT-EPS Analysis. Dividend Decisions: Factors determining dividend policy. Theories of dividend – Gordon model, Walter model, MM Hypothesis, Signalling Theory. Forms of dividend – Cash dividend, Bonus shares, Stock split.

Unit 4: Working Capital Management (12 Hours)

Working Capital Management: Determination of Working Capital. Determining financing mix of working capital. Receivables Management – Objectives; Credit Policy, Cash Discount, Debtors Outstanding and Ageing Analysis; Costs – Collection Cost, Capital Cost, Default Cost, Delinquency Cost. Management of Cash (Theory only) – Need for Cash, Cash Management Techniques (Lock box, Concentration Banking). Inventory Management (Theory only) – ABC Analysis; Minimum Level; Maximum Level; Reorder Level; Safety Stock; EOQ (Basic Model).

Essential/recommended Readings (Latest editions of the readings to be used)

1. Brealey, R.R., Myers.S., Allen, F.,& Mohanty, P. *Principles of Corporate Finance*. (13th Edition Tata Mc-Graw Hill.
2. Horne, James CV. And John M. Wachowicz, Jr. *"Fundamentals of Financial Management.*(13th ed, Pearson Education.
3. Pandey, I.M. (2016), *Financial Management*, 11th ed., Vikas Publication.
4. Khan, M.Y. and Jain, P.K.(2017). *Financial Management: Text Problem and Cases*, 7th ed. Tata McGraw Hill Education.
5. Singh, S. and Kaur, R. (2020). *Fundamentals of Financial Management: with Excel application s*upplement,, Mayur Paperbacks.

Note: Examination scheme and mode shall be as prescribed by the Examination Branch, University of Delhi, from time to time.

DISCIPLINE SPECIFIC CORE COURSE – 12: HUMAN RESOURCE

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course title & Code	Credits	Credit distribution of the course			Eligibility criteria	Pre-requisite of the course (if any)
		Lecture	Tutorial	Practical/ Practice		
Human Resource Management (DSC 12)	4	3	1	0	Class XII	Basics of Organizational Behaviour and Management

Learning Objectives

- To help the learners to develop an understanding of the concept & and essential functions of human resource management.
- To focus on Human resource management in context of Indian experiences, approaches and cases.

Learning Outcomes

On successful completion of the course the learner will be able to:

- Understand the concept, functions and role of human resource management and explore the recent trends of human resource management.
- Develop an understanding of human resource management functions of planning, recruitment and selection.
- Apply the concepts of HRM to develop training and development programs for employees.
- Enhance awareness of certain important issues in industrial relations.

SYLLABUS OF DSC 12

Unit 1: Introduction to Human Resource (9 Hours)

Human Resource Management: Concept and Functions; HRD – Definition, goals and challenges; The changing environment of HRM– globalization, cultural environment, technological advances, workforce diversity, corporate downsizing, changing skill requirement, HRM support for improvement programs, Work life balance.

Unit 2: Human Resource Planning, Recruitment and Selection (12 Hours)

Human Resource Planning: Process, Forecasting demand & supply, Skill inventories, Succession planning; Human Resource Information System (HRIS); Job analysis – Uses, methods, Job description & Job specifications; Recruitment: internal & external sources, Selection process, Tests in selection, concept of reliability and validity in selection; Orientation: Concept and process.

Unit 3: Training and Development (12 Hours)

Training: Concept, Training Process, Methods of training. Management Development: Concept & Methods. Performance Management System: concept, uses of performance appraisal, performance management methods, factors that distort appraisal. Career Planning: career life stages, career anchors. Compensation: Steps in determining compensation, job evaluation, components of pay

structure, factors influencing compensation levels, Trends in Compensation. Incentives: Importance and types; Benefits - Types, Brief introduction to social security, health, retirement & other benefits.

Unit 4: Industrial Relations (12 Hours)

Industrial Relations: Introduction to Industrial Relations; Trade unions role, types, functions, problems. Industrial disputes – concept, causes & machinery for settlement of disputes. Employee Grievances – concept, causes & grievance redressal procedure. Discipline – concept, aspects of discipline & disciplinary procedure. Collective bargaining: concept, types, process, problems, essentials of effective collective bargaining.

Essential/recommended Readings (latest edition of readings to be used)

1. Dessler, G., & Varrkey, B. (2005). *Human Resource Management, 15e*. Pearson
2. DeCenzo, D. A., Robbins, S. P., & Verhulst, S. L. (2016). *Fundamentals of human resource management.* John Wiley & Sons.
3. Chhabra, T.N. (2009). *Human Resource Management Concept & Issues*. Dhanpat Rai and company.

Note: Examination scheme and mode shall be as prescribed by the Examination Branch, University of Delhi, from time to time.